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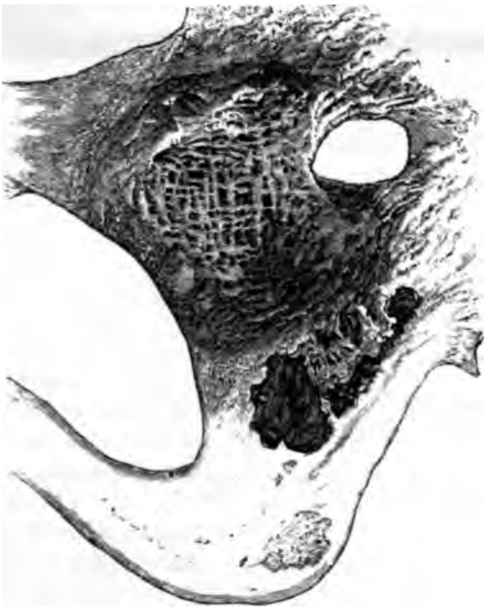

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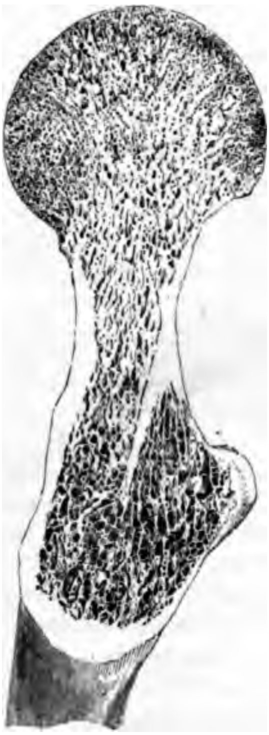

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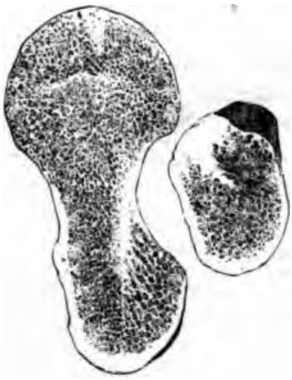

Fig 3.

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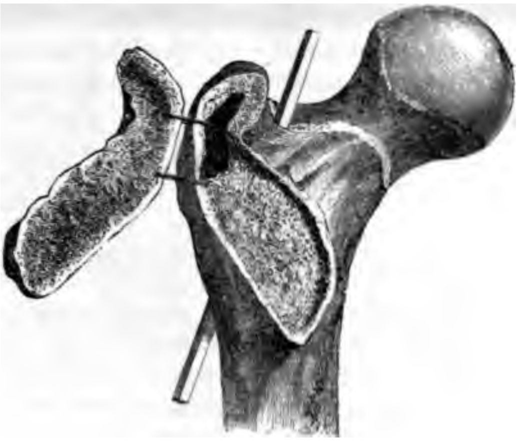

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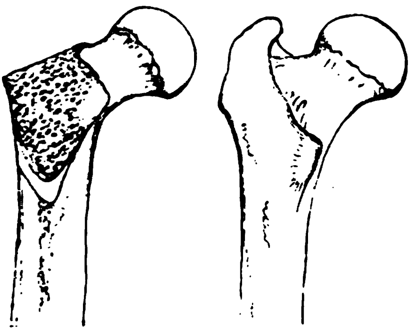

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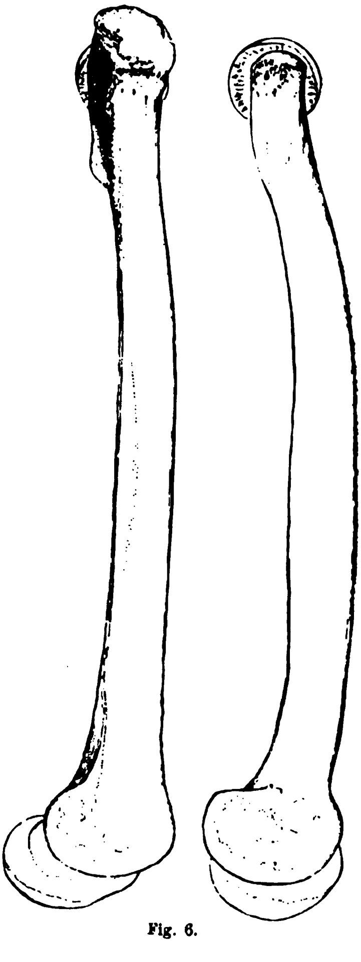

Fig. 6.

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THE TRUE NECK OF THE FEMUR: ITS STRUCTURE AND PATHOLOGY.

BY HENRY J. BIGELOW, M.D.

I. — STRUCTURE.

Some of the later numbers of Virchow's Archives contain a protracted yet interesting discussion upon the interior structure of bones: notably of the head of the femur. According to Merkel,[1] G. H. Meyer, in 1867, pointed out certain arching fibres in their cancellated structure as "a well-marked architecture, which stands in the closest relation to the static and dynamic forces of the bones."

In 1870,[2] Wolff made further investigation of this subject, and, in addition, this writer incorporated into his paper certain elaborate mathematical calculations of Culmann, of Zurich, showing that interior braces intended to aid in supporting a weight upon the end of a cylinder curved like the thigh-bone, or like a crane or derrick, should be placed, in order to act to best advantage, precisely where the trabeculæ of the spongy tissue of this bone actually exist. "Nature," says Wolff, "has built the spongy bones, as an engineer would construct a truss bridge, mathematically."

This recent German investigation, apart from the mathematical calculation which Merkel avows his inability to follow, was anticipated, so long ago as 1850, by the late Prof. Jeffries Wyman, who, in a comprehensive article upon this subject,[3] reached the following conclusions:

"1. The cancelli of such bones as assist in supporting the weight of the body are arranged either in the direction of that weight, or in such a manner as to support and brace those cancelli which are in that direction. In a mechanical point of view, they may be regarded in nearly all these bones as a series of 'studs' and 'braces.'

"2. The direction of the fibres in some of the bones of the human skeleton is characteristic, and it is believed has a definite relation to the erect position, which is naturally assumed by man alone.

"These structures are most clearly defined in adult and middle-aged skeletons."

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[1] Virchow's Archives, 1874; vol. 59, p. 237.

[2] Ibid., 1870; vol. 50, p. 389.

[3] Boston Journal of Natural History, 1850; vol. 6, No. 1, p. 125: Report of the Committee on Medical Sciences; Transactions of the Medical Association, 1850.

Dr. Wyman illustrates his paper by diagrams alone sufficient to demonstrate, even to a common mechanic, an advantageous adaptation of means to end. An internal structure, shown to be rectangular in the vertebræ, radiating in the tarsal bones, and arched in the neck of the femur, obviously offers economical resistance to the weight it is designed to carry. But, if doubt be still entertained, the laborious calculations of Culmann, assumed to be correct, establish the fact absolutely, so far as the femoral neck is concerned.

Thus much for the spongy structure of the bones in general. (See Fig. 1.) We are now to consider an arrangement peculiar to the interior of the neck of the thigh-bone. According to Merkel, a section of this may be seen in an illustration designed for another purpose, many years ago, by Pirogoff, who, however, does not allude to it. In 1870,[1] Wolff speaks of it as "a compact tissue beneath the trochanter minor."

In 1874, in an able paper largely devoted to its description, Merkel[2] calls this compact tissue the "calcar femorale," "schenkelsporn," or thigh-spur. The special object of Merkel's paper is to prove its predominant importance in sustaining the weight of the body, and to show that the strength of the neck of the femur is mainly due to this dense tissue, and not to the braces of Wolff and Culmann. Although a little embarrassed by variations of the "spur" as it appears in different preparations, "being in some straight, in others curved," he insists strongly upon its teleological importance; doubting whether the arrangement of the spongy tissue possesses the same significance, because the calcaneum of man and that of the ox, as shown by Wolfermann, really perform very different functions, although they offer a similar internal structure: a statement equally true of the spongy system generally. On the other hand, Wolff, in a second paper,[3] replies that "the calculations of Culmann prove that the 'spur' is not at the point of greatest strain, nor yet where strength is most needed;" that "Merkel's theory in no way agrees with Culmann's calculations, which may be accepted as beyond controversy;" and that "Merkel has ascribed to the 'spur' a wholly erroneous importance."

In the following foot-note,[4] Merkel again insists upon his views: —

"While these sheets are being printed, I have received the work of Bigelow upon the Mechanism of Dislocation and Fracture of the Hip, translated by Pochhammer (Berlin, Hirschwald), in which the *schenkelsporn* is both described and figured; he does not, however, follow out the significance of the structure."

Before again expressing my own opinion of the purpose of the bony plate in question, it may not be amiss to cite here the description alluded to by Merkel, especially as I do not discover that anything of importance has been added to it since its publication in 1869: —

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[1] Virchow's Archives, 1870; vol. 50, p. 389.

[2] Ibid., 1874; vol. 59, p. 237.

[3] Ibid., 1874; vol. 61, p. 417.

[4] Ibid., 1874; vol. 59, p. 251.

"ANATOMICAL STRUCTURE OF THE NECK OF THE FEMUR.[1]

"Let a well-developed femur be placed in a vice with its back towards the observer, in its natural upright position, but obliquely, as if the legs were widely separated, the shaft being so far inclined that the neck is horizontal. Let a first slice be now removed from the top of the head, neck, and trochanter, by a saw carried horizontally through the neck. Let a second and third slice be removed in the same way, so that the neck shall be divided into four horizontal slices of equal thickness.[2]

"It will be found that the upper section exhibits the anterior and posterior walls of nearly equal thickness, but that, as we approach the lower surface of the neck, the anterior wall becomes of great thickness and strength, while the posterior wall remains thin, especially at its insertion beneath the posterior intertrochanteric ridge, where it is of the thinness of paper. (Fig. 2.)

"TRUE NECK.

"Upon examining the lower of the above sections in a well-marked bone, the posterior or papery wall of the neck will be seen to be prolonged by radiating plates into the cancellous structure beneath the intertrochanteric ridge. That the thickest of these (Fig. 2) is a continuation of the true neck may be shown in another way. Let the whole of the posterior intertrochanteric ridge, including the back part of both trochanters, be removed by a narrow, thin saw. (Fig. 4.) The bone being now laid upon a table, let a chisel, or, what is better, a gouge, be held perpendicularly upon the cancellous structure thus exposed, and lightly twirled until the friable and spongy tissue is removed and the instrument arrested by the septum or wall alluded to. To expose its inner surface, the shaft should be split by a vertical and curved section behind this wall, and the cancellous structure removed in the same way.

"The septum will then be distinctly seen, as a thin, dense plate of bone continuous with the back of the neck, and reinforcing it, plunging beneath the intertrochanteric ridge in an endeavor to reach the opposite and outer side of the shaft. At its lower extremity it curves a little forward, so as to take its origin, when on a level with the lesser trochanter, from the centre, instead of the back, of the cylindrical cavity, — a disposition easily seen in a transverse section of the shaft just above the trochanter minor. (Fig. 3.) Or it may be said that the posterior wall of the neck forks before reaching the intertrochanteric line, one layer being seen upon the surface, while the other dives beneath the intertrochanteric ridge in a vain attempt to reach the outer wall of the shaft. If these views be correct, the intertrochanteric ridge is simply a buttress erected for the insertion of muscles upon and over the true neck, by the impaction of which it is in fact often split off and detached in a mass, the force exerted by the true neck, though slight, being nevertheless an effort to resist such impaction."

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[1] The Hip (Philadelphia, Henry C. Lea), 1869; p. 120.

[2] "If the head of the bone be now vertically transfixed by a wire, the sections may be spread for examination, like a fan."

As regards ordinary spongy tissue, the teleological question is satisfactorily answered in either of two ways. We may attribute its architecture to that immediate necessity which, in pathology, builds a buttress to support a bone curved by rickets or weakened by fracture, or explain it by a general principle of conformation, in a measure automatic, developed in the lapse of generations by a frequently recurring necessity, and still continuing to act without immediate stimulus.

But the purpose of the osseous plate, whose structure and pathology it is the main object of this paper to discuss, may be at first a little less obvious. It plainly adds a certain strength to the bone, and yet in most bones it terminates beneath the trochanters in papery lamellæ wholly inadequate to lend it material support. It is usually united, even to the trochanters, only by a delicate wall and spongy tissue. It obeys the laws of similar bony structure, being feebly developed in childhood; while later in life its absence in the femoral neck impresses us, as do bone-sections generally, with the truth of the observation of Henle, that the so-called brittleness of age depends not so much on the loss of animal substance as upon the atrophy of the bony walls and interior structure.

These varying appearances might well leave us in doubt as to the purpose of this osseous plate; but no doubt can exist in the mind of one who examines an exceptionally well-marked adult bone. Such a bone fell under my observation in 1861. (Fig. 4.) The dense plate is there a continuation of the neck, completing the interval everywhere except at its upper part. In this form it adds greatly to the strength of this part of the femur, while the trochanters and their ridge erected upon it both reinforce it and give attachment to the muscles.

This may be again shown. In a back view of the femur (Fig. 5), the neck appears as a pyramid with its base to the trochanters. The cylindrical shaft also spreads as it rises to meet the trochanters. In a side view (Fig. 6), it is seen that both these cylinders, joined at their bases, are flattened from front to back, and are continuous in shape and direction, although surmounted at their junction by the trochanteric prominences. If we now remove the trochanters with their connecting ridge (Figs. 5 and 6), it may be again observed that what we have called the true neck maintains the continuity of the shaft. It no longer resembles a "spur," with its edge exposed by excavating the wall, as in Merkel's preparations. Thus denuded, the shaft has an air of symmetrical strength. It is flattened to resist weight, like a bone curved by disease, while the trochanters seem to have been added for a different purpose.

Unfortunately, bones like that above alluded to are rare. The true neck is often at best but an ineffectual attempt to bridge the interval beneath the trochanters, as seen in Merkel's figures, while, in the latter half of life, it degenerates into papery plates radiating downward from a point near the lesser trochanter.

Weakened in this way both by its own tenuity and by its slender union to the trochanteric ridge, the true neck has great practical interest for the surgeon. Even the adult femur is generally defective in construction at this point; and here occurs the most common form of fracture, namely, the posterior impacted fracture of the base of the neck.

(To be continued in the next number.)

EXPLANATION OF FIGURES.

Fig. 1. A specimen showing repair of the acetabulum after hip disease is here figured. The subject, a boy of a dozen years, was from the dissecting room. Large sinuses still remained open. The head and neck of the femur had disappeared, and the trochanters were united to the ilium by a narrow isthmus of bone, an inch above and behind the socket. The latter is filled with a curious right-angled net-work, extending to some depth, the explanation of which is not obvious; and whether it be sought in the influence of a neighboring rectangular spongy tissue towards the spine of the ischium, or in prolonged fibres of the vertical ramus of the ischium and the horizontal one of the pubes interlaced beyond their normal boundary in the healthy socket, or lastly in some accidental traction upon tissue afterwards ossified, the solution is equally unsatisfactory. At the bottom of the figure is the tuberosity. A perforation near the socket was in the track of a sinus.

"Fig. 2. Exhibits a bird's-eye view of a horizontal section of the neck of the femur, showing the posterior wall plunging beneath the intertrochanteric ridge, at the angle where the neck joins the shaft. The posterior wall is of the thinness of paper, and here impaction occurs. The anterior wall, on the contrary, is seen to be quite thick, and forms by its fracture a hinge which is very rarely impacted.

"Fig. 3. The same. The section of the shaft near the lesser trochanter shows the lower extremity of the septum, where the wall is thicker and changes its direction. (From a photograph taken in 1861.)

"Fig. 4. Anatomy of impacted fracture. The intertrochanteric ridge has been removed, and the cancellous structure so excavated as to exhibit the true neck beneath. The rod is placed in a longitudinal fissure by which the shaft of the bone has been split, in order to exhibit the true neck from within. (From a photograph taken in 1861.)"

Fig. 5. Rear view of left femur with and without the trochanters. The removal of these exposes, in the left-hand figure, the true neck.

Fig. 6. Side view of the same. While these views are designed to exhibit the true neck, it is not denied that the trochanteric shell helps to stiffen the curving shaft and to sustain any weight resting upon the head of the bone; especially through the intervention of the upper and horizontal part of the neck.

THE PHYSIOLOGY OF VERSIFICATION.

HARMONIES OF ORGANIC AND ANIMAL LIFE.

BY OLIVER WENDELL HOLMES, M. D.

WE are governed in our apparently voluntary actions by impulses derived from many obscure sources which act upon us almost without our cognizance. The digestive system legislates largely for our habits, bodily and mental, and its condition has no insignificant effect upon our intellectual and spiritual states. We are commanded to a considerable extent by our idiosyncrasies and infirmities. The secret of our diversities as social beings lies far more in our peptic capacities, in our indifference to exposure or liability to suffer from it, in our sensibility to cold and heat or to the air of ill-ventilated rooms, in the varying amount of sleep we require, in the degree of ability to bear strong light, in the quickness or dulness of our hearing, in the greater or less degree of fatigue induced by the standing posture, and in the demands of internal organs which have a will if not a voice of their own, than our friends who call us good companions or otherwise are always ready to believe.

There are two great vital movements preëminently distinguished by their rhythmical character, — the respiration and the pulse. These are the true time-keepers of the body; having a constant relation in health, the proportion being, as Mr. Hutchinson has shown, one inspiration to every four beats of the heart. It is very easy to prove that the first of these rhythmical actions has an intimate relation with the structure of metrical compositions. That the form of verse is conditioned by economy of those muscular movements which ensure the oxygenation of the blood is a fact which many have acted on the strength of without knowing why they did so.

Let us look first at the natural rate of respiration. Of 1817 individuals who were the subject of Mr. Hutchinson's observations, "the great majority (1781) breathed from sixteen to twenty-four times per minute. Nearly a third breathed twenty times per minute, a number which may be taken as the average." [1]

The "fatal facility" of the octosyllabic measure has often been spoken of, without any reference to its real cause. The reason why eight syllable verse is so singularly easy to read aloud is that it follows more exactly than any other measure the natural rhythm of respiration. In reading aloud in the ordinary way from The Lay of the Last Minstrel, from In Memoriam, or from Hiawatha, all written in this measure, the first two in iambics, or short-longs, the last in trochaics or long-shorts, it will be found that not less than sixteen nor more than twenty-four lines will be spoken in a minute, probably about twenty. It is plain, therefore, that if one reads twenty lines in a minute, and naturally breathes the same number of times during that minute, he will pronounce one line to each expiration, taking advantage of the pause at its close for inspiration. The only effort required is that of vocalizing and articulating; the breathing takes care of itself, not even demanding a thought except where the sense may require a pause in the middle of a line. The very fault found with these octosyllabic lines is that they slip away too fluently, and run easily into a monotonous sing-song.

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[1] Flint's Physiology, i. 391.

In speaking the ten syllable or heroic line, that of Pope's Homer, it will be found that about fourteen lines will be pronounced in the minute. If a breath is allowed to each line the respiration will be longer and slower than natural, and a sense of effort and fatigue will soon be the consequence. It will be remembered, however, that the *cæsura*, or pause in the course of the line, comes in at irregular intervals as a "breathing-place," which term is its definition when applied to music. This gives a degree of relief, but its management requires care in reading, and it entirely breaks up the natural rhythm of breathing.

The fourteen syllable verse, that of Chapman's Homer, the common metre of our hymn-books, is broken in reading into alternate lines of eight and six syllables. This also is exceedingly easy reading, allowing a line to each expiration, and giving time for a little longer rest than usual at the close of the six syllable line.

The twelve syllable line, that of Drayton's Polyolbion, is almost intolerable, from its essentially unphysiological construction. One can read the *ten* syllable line in a single expiration without any considerable effort. One instinctively divides the *fourteen* syllable line so as to accommodate it to the respiratory rhythm. But the *twelve* syllable line is too much for one expiration and not enough for two. For this reason, doubtless, it has been instinctively avoided by almost all writers in every period of our literature.

The long measure of Tennyson's Maud has lines of a length varying from fourteen to seventeen syllables, which are irregularly divided in reading for the respiratory pause. Where the sense does not require a break at some point of the line we divide it by accents, three in each half, no matter what the number of syllables; but the breaks which the sense requires so interfere with the regularity of the breathing as to make these parts of Maud among the most difficult verses to read aloud, almost as difficult as the Polyolbion.

It may be said that the law of relation here pointed out does not apply to the *writing* of verse, however it may be with regard to reading or declaiming it. But the early poems of a people are recited or sung before they are committed to writing, and even if a versifier does not read aloud as he writes, he mentally articulates every line, and takes cognizance instinctively of its physiological adjustment to respiration as he does of its smoothness or roughness, which he hears only in imagination.

The critical test of poetry by the stop-watch, and its classification according to its harmonizing more or less exactly with a great vital function, does not go very far, but it is quantitative and exactly scientific so far as it does go. The average reader will find on trial that the results given above are correct enough to justify the statements made. But here, as in astronomical observation, we must not forget the personal equation. An individual of ample chest and quiet temperament may breathe habitually only fourteen times in a minute, and find the heroic or iambic pentameter, — the verse of Pope's Homer and Gray's Elegy, — to correspond with his respiratory rhythm, and thus to be easier than any other for him to read. A person of narrower frame and more nervous habit may breathe oftener than twenty times in a minute, and find the seven syllable verse of Dyer's Grongar Hill fits his respiration better than the octosyllables of Scott or Tennyson or Longfellow. A quick-breathing little child will learn to recite verses of two and four syllables, like the story of the couple whose predilections in favor of azotized and non-azotized diet are recorded in our nursery classic, and do it easily, when it would have to catch its breath in the middle of lines of six or seven syllables.

Nothing in poetry or in vocal music is widely popular that is not calculated with strict reference to the respiratory function. All the early ballad poetry shows how instinctively the reciters accommodated their rhythm to their breathing. Chevy Chace or The Babes in the Wood may be taken as an example for verse. God save the King, which has a compass of some half a dozen notes and takes one expiration, economically used, to each line, may be referred to as the musical illustration.

The unconscious adaptation of voluntary life to the organic rhythm is perhaps a more pervading fact than we have been in the habit of considering it. One can hardly doubt that Spenser breathed habitually more slowly than Prior, and that Anacreon had a quicker respiration than Homer. And this difference, which we conjecture from their rhythmical instincts, if our conjecture is true, probably, almost certainly, characterized all their vital movements.

It seems not unlikely that other organic rhythms may be found more or less obscurely hinted at in the voluntary or animal functions. How far is *accent* suggested by or connected with the movement of the pulse, every stroke of which, if it does not lift the brain, as Bichat taught, sends a shock through its whole substance, and compresses it in its unyielding case? It is worth nothing that twenty acts of respiration mean eighty arterial pulsations, and that twenty octosyllabic lines corresponding to these eighty pulsations have exactly eighty accents. Again, there is a singular coincidence between the average pulsations of the arteries and the number of steps taken in a minute; and as we hurry our steps, the heart hurries to keep up with them. They sometimes correspond so nearly that one is reminded of the relation between the steam-chest, with its two alternately opening valves, and the piston with its corresponding movements, as we see it in the steam-engine. The doctrine of Bichat referred to above has been combated on the ground that the closely imprisoned brain could not be lifted; but the forcible impact of the four columns of arterial blood is none the less real in the normal condition than when the brain is seen to be raised through an accidental opening in the skull. So, also, notwithstanding the gradual equalization of the cardiac impulse, this impulse must be felt very extensively throughout the body. We see that it can lift a limb through a considerable space when we happen to sit with one leg crossed over the other. It is by no means impossible that the regular contractions of the heart may have obscure relations with other rhythmical movements more or less exactly synchronous with their own; that our accents and our gestures get their first impulse from the cardiac stroke which they repeat in visible or audible form. In these funeral marches which our hearts are beating, we may often keep step to the cardiac systole more nearly than our poet suspected. But these are only suggestions to be considered and tested; the relations of verse to the respiratory rhythm will be easily verified and extended by any who may care to take the trouble.

RECENT PROGRESS IN MEDICAL CHEMISTRY.

BY E. S. WOOD, M. D.

TOXICOLOGY.

Chronic Lead Poisoning. — Of late the attention of physicians and chemists has been largely drawn to this subject on account of the increasing frequency of its occurrence, and on account of its great importance from a hygienic point of view. Not much that is new has been added to our knowledge of the sources of lead poisoning, but many experiments have been performed which assist in explaining the exact action of the various kinds of water upon lead pipe, and much has been done to discover means for purifying water which has become contaminated with lead compounds, and for substituting innocuous utensils instead of those which contain lead in their composition.

That distilled water when exposed to the air has a very powerful action upon metallic lead is not a new observation. Thus, M. Pierre (*Journal de Pharmacie et de Chimie*, June, 1874) detected 0.078 grm.

of the hydrocarbonate of lead in the distillate collected after passing steam through a coil of lead pipe. Nor is it new that the presence of certain salts in water modifies this action very greatly. The effect of various saline compounds has been studied at considerable length by M. Fordos (*Journal de Pharmacie et de Chimie*, July, 1874). He finds that in potable waters which contain bicarbonate of calcium, the oxide of lead combines with a part of the carbonic acid, and there results a precipitate of the mixed carbonates of lead and calcium, which adheres to the surface of the lead pipe and prevents further contact of the metal with the water.

In water which contains the sulphate of sodium, the precipitate which results consists of a mixture of the carbonate and sulphate of lead. At the same time the water becomes alkaline to test-paper, and the filtered solution gives a black precipitate with sulphuretted hydrogen. Not only, therefore, has a precipitate of a lead salt formed, but there is also some lead in solution. This is explained in the following way. The oxide of lead, formed by the action of the water, reacts on the sulphate of sodium to form sulphate of lead and hydrate of sodium (liquor sodii); the carbonic acid derived from the air converts the latter into carbonate of sodium, which reacts upon the sulphate of lead to form carbonate of lead and sulphate of sodium again. The sulphate of lead is not absolutely insoluble in alkaline solutions.

With water which contains common salt, the result is analogous, a mixture of the chloride and carbonate of lead being formed. Analogous also is the action of chloride of ammonium, nitre, and nitrate of ammonium.

The action of water which contains gypsum (sulphate of calcium) upon metallic lead is very slight, a precipitate of the carbonates of lead and calcium being formed upon the surface of the metal, protecting it from further action. If the water contains in addition to the gypsum .001 of common salt, the action upon the lead is much greater. The sulphate of magnesium has the same action as the sulphate of calcium.

It will be seen, therefore, that the presence of alkaline salts in water can render partially soluble those salts of lead which are insoluble in pure water, such as the carbonates and sulphates, and thus partially counteract the beneficial effect of the earthy sulphates and carbonates in preserving the pipe from being further acted upon by the water.

M. Rafard states (*Journal de Chimie Médicale*, November, 1874) that the simple addition of sulphuretted hydrogen is not a sufficiently delicate test for lead in water, since the hydrocarbonate of lead, which is formed by the action of pure water upon lead, and which consists of four equivalents of the oxide of lead, three of carbonic acid, and one of water, often exists in the water in a state of such minute subdivision that it cannot be seen by the unaided eye. In such a water it is necessary first to dissolve the lead carbonate before it will be blackened by the sulphuretted hydrogen. In order to effect this solution it is only necessary, before adding the sulphuretted hydrogen, to bring the water to boiling and add a few drops of a solution of tartrate of ammonium which dissolves those lead compounds which are insoluble in water. If these precautions are adopted, the brown color of the sulphide of lead can be seen if only very small amounts are present.

To remove lead salts from water, M. Chevallier (*Annales d'Hygiène*, July, 1874) recommends the use of animal charcoal. This method is especially applicable on board vessels, to remove salts of lead or copper from the water which is provided for drinking purposes by distillation. In many of the distilling apparatuses, the coil for the condensation of the steam is made of lead or copper, and the water thus condensed always contains a certain amount of the salts of the metal of which the coil is constructed. Many cases are recorded of what is termed "dry colic" among the sailors on board of vessels which are provided with such an apparatus.

Experiments of Lowitz and others have shown that animal charcoal is capable of removing from water not only various organic matters, but also many mineral salts, such as those of lead and copper. The treatment of the water is as follows: To each hectolitre (about 26½ gallons) should be added thirty grammes (about one ounce) of well washed animal charcoal; the mixture should be well shaken or stirred several times, and then allowed to settle. The supernatant fluid is free from compounds of lead or copper, and is suitable for drinking purposes. Upon the same principle, by using charcoal filters for water which has flowed through lead pipe, tolerable security against lead poisoning can be obtained, if care be taken not to overtax the filters.

It has long been known that one of the fertile sources of chronic lead poisoning is the use of common glazed earthen-ware dishes for the preservation or cooking of food, especially acid fruits. The glazing of such vessels contains lead, which can be dissolved out by acids. M. Constantin, a chemist in Brest (*Journal de Chimie Médicale*, October, 1874), has invented a new glazing which contains no lead and should be substituted for the lead glazings. This is made by fusing a mixture of one hundred parts of silicate of sodium, fifteen parts of powdered quartz, and fifteen parts of chalk. To these ingredients may be added ten parts of borax, which renders the glass more fusible and adds to the brilliancy and durability of the glazing.

In the *Journal de Pharmacie et de Chimie*, for August, 1874, is given a report by MM. Bergeron and l'Hôte of an outbreak of lead poisoning in which twenty-six persons were affected. Two of the cases proved fatal. The disease was traced to the presence of lead in brine in which butter was kept. Six specimens were analyzed and found to contain amounts of the chloride of lead corresponding to from 2.3 to 7.5 grammes of sugar of lead to the litre of brine.

Lead was detected in the intestines, liver, and brain of those who died. The existence of lead in the brain in cases of chronic poisoning has been denied by many authors. In the above cases, however, all the proper precautions were taken in performing the analyses, and the metal itself was extracted and weighed, so that there can be no doubt of its existence in that organ in some cases.

Dr. A. Manouvriez (*Recherches cliniques sur l'Intoxication saturnine locale et directe par Absorption cutanée*, Paris, 1874) reports in detail thirty cases of chronic lead poisoning, from the study of which he draws the following conclusions: —

"1. In addition to general and indirect poisoning by digestive and pulmonary absorption, there exists a local and direct intoxication by cutaneous absorption, affecting the parts in immediate contact with the lead.

"2. This local intoxication manifests itself by neuralgic pains both articular and muscular, by cramps, trembling, tingling sensations, sensory and motor paralysis, and atrophy.

"3. This local affection, which in most cases coexists with the general affection, can nevertheless in certain cases exist alone.

"4. These local symptoms can advantageously be combated by local external treatment, and prevented by hygienic precautions which keep the skin from contact with the lead preparation.

"5. The greatest caution is necessary in the employment of medicinal preparations containing lead as local applications to the skin."

Of the thirty cases reported, eight handled lead in the metallic form, as plumbers and type-setters, and twenty-two handled it in the form of white lead and minium. Three of the patients presented no symptoms of the general affection, no colic, no constipation, and no blue lines upon the gums.

In painters the local symptoms predominated upon the fore-arm, affecting preferably the right side in those who were right-handed, and the left side in those who were left-handed. The symptoms which were located exclusively or predominated at the points of contact with the lead were motor paralysis (in twenty-two cases), paralysis of sensibility to pain (in twenty-seven), to touch and to temperature (in twenty-six), and to tickling (in twenty-two), trembling (in seven), cramps (in eight), pain (in nine), and tingling sensations (in four). After taking a sulphur bath, the skin at the points of contact with the metal was colored black in eight cases, although no coloration could be seen previous to taking the bath.

(*To be concluded.*)

ZIEMSSEN'S CYCLOPÆDIA.[1]

It is not necessary, were it possible, to enumerate all the changes which the progress of practical medicine during the last fifteen or twenty years has made necessary in treatises on the Practice of Medicine. To allude to a few only of the subjects in which great advances have been made, or which are wholly of recent date, we may mention the relations of Tuberculosis with Pulmonary Consumption; the pathology of Renal Diseases; the physiology and pathology of the Nervous System; the subject of the Bodily Temperature. and its relations to diagnosis and prognosis; the use of the Sphygmograph for the same purposes; the improvement in general and special Therapeutics, including the employment of many new drugs of great power and efficacy: all which show the need of some new and comprehensive work, both for the use of students and also for the busy practitioner who desires to keep pace with the rapid progress of medical science, and who can ill afford the time which must otherwise be spent in the perusal of monographs and of medical periodicals. The volume before us is the first of a series of sixteen which is intended to supply this want. The only work resembling it with which we are acquainted, in the English language, is Reynolds's System of Medicine, which, when completed, will consist of but four or five volumes, and, admirably executed as it is in many respects, is too restricted in its scope.

So far as we have been able to judge from its perusal, the first volume of Ziemssen's *Cyclopædia* fully equals the expectations we had formed of it. It contains articles on the following subjects: *Infectious Diseases*, *Typhoid Fever*, and *Plague*, by Professor Liebermeister, of Tübingen; *Relapsing Fever*, *Typhus*, and *Cholera*, by Professor Lebert, of Breslau; *Yellow Fever*, by Professor Haenisch, of Greifswald; *Dysentery*, by Professor Heubner, of Leipzig; and *Diphtheria*, by Professor Oertel, of Munich. These subjects are treated in the most thorough and at the same time practical manner, and the opinions of the writers are compared with those of the best authorities in all countries.

The longest article, occupying about 200 pages, is that on Typhoid Fever, a very complete and valuable treatise on the subject. Professor Liebermeister devotes much space to the consideration of the etiology of this disease. He concludes that the generally received opinion that typhoid *originates* in the decomposition of organic substances is no longer tenable; that "besides external conditions favorable to the development of the poison, something else is necessary. Numerous facts render it more than probable that this something necessary is the specific poison itself. In other words, the poison of typhoid fever does not originate in decomposing substances, but finds in them a favorable ground for its growth and multiplication. The most convincing experiences show that typhoid fever never originates in any unusual amount of decomposing matter, nor from any circumstances favorable to decomposition, but is always preceded by the introduction of a case of the same disease. This opinion, that the poison of typhoid fever is propagated continuously, and never originates autochthonously, was first established by Budd. It has gained ground slowly as yet, but there is every prospect that it will in time become the prevalent opinion." Whatever be the origin of the poison, there can be no doubt that its *propagation* is due to defective hygienic conditions. Hence the importance of vigilance in preventing and remedying these conditions is insisted on. The author believes that while the most thorough precautions will not prevent the introduction of the disease into large cities, when it is epidemic in other places, yet in the cases of individual houses in small places, and of groups of houses in larger places, it is possible to isolate any cases of the fever that may be imported, by means of a proper treatment of the dejections, which should be disinfected in the most thorough manner, by sulphate of iron and crude muriatic acid, and carefully buried in the earth, at a distance from the vicinity of wells. When this is not practicable, and the dejections must be emptied into privy vaults, they should be even more carefully disinfected. The clothing and bed-linen which is soiled by the stools should also be thoroughly disinfected. We wish the importance of these views could be more generally appreciated, especially by the public, in order that those sanitary measures on which the welfare of the community so largely depends might be more thoroughly carried out than they are at present. We have no space to point out the principal details of this admirable memoir, but must refer it to the reader's careful attention, assuring him that he will find it useful and practical, as well as elaborate and learned. We must, however, allude to one point, in reference to treatment. Professor Liebermeister is an advocate for the use of the cold bath (at 68° or lower), in cases in which the bodily temperature is as high as 102.2°. The patient should remain in the bath about ten minutes, then be wrapped in a dry sheet and put to bed, lightly covered, and given a glass of wine. In severe cases it is necessary to repeat the bath every two hours, and twelve baths are sometimes given to a patient in the course of twenty-four hours. The difficulty, we might say the impossibility, of carrying out this treatment thoroughly in private practice, is obvious; in hospital practice it would be of benefit in only a few cases, we should think, at least in this country. Nevertheless the favorable effect which follows it, as shown by careful statistical observations, is so great that we desire to call attention to it. The author thinks that the efficacy of cold sponging is far less than the cold bath, and can never serve as a substitute for it. We hope his preference for his favorite method may be, to some extent, a prejudice, for we believe that by means of frequent sponging with cold water, or perhaps with vinegar, or some evaporating liquid, excellent results may be obtained.

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[1] *Cyclopædia of the Practice of Medicine.* Edited by Dr. H. von Ziemssen, Professor of Clinical Medicine in Munich, Bavaria. Vol. I. *Acute Infectious Diseases.* Albert H. Buck, M. D., New York, Editor of the American Edition. New York, William Wood and Company, 1874. Pp. 708.

We have read with much pleasure Dr. Oertel's article on Diphtheria, and heartily recommend it to our readers. The account of vegetable organisms, or bacteria, contained in the diphtheritic membranes, in the subjacent diseased parts, and even in the blood of patients affected with the disease, is extremely interesting. By means of inoculations practiced on animals, the author believes that he has furnished the proof that diphtheria begins as a local disease and develops afterwards into a general one. This throws light on the disputed subject of the identity of croup and diphtheria, the former, according to the results of this investigation, being "a simple form of inflammation in which a fibrinous exudation occurs upon the mucous membrane, and which can never pass the bounds of the local process."

The article on Dysentery, by Dr. Heubner, is also one of those complete works, showing an immense amount of patient investigation, which only Germans seem capable of. It will be read with much profit by the practical physician.

We have no room for special remarks upon the rest of the contents of this admirable volume. If the succeeding ones are equal in merit to it, as we are entitled to expect from the names of the authors which are presented to us in the prospectus, the work will prove one of the most useful publications ever issued from the medical press. The American publishers are entitled to great praise for their enterprise in undertaking its presentation in an English dress. The several translators have done their work not only in a faithful but in an elegant manner. There is hardly anything to remind the reader that the book was not written originally in English. The printing is really beautiful, and the appearance of the volume all that could be desired. Finally, the price is so moderate as to put the work within the reach of all who desire to possess one of the best guides in practical medicine.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M. D., SECRETARY.

NOVEMBER 23, 1874. — *Fibrous Cyst in the Arachnoid Cavity.* — DR. JACKSON exhibited a very fine specimen of this disease which he had received from Mr. Foley, one of the medical class. The specimen came from a middle aged dissecting-room subject. It was about four and a half inches long and two and a half inches in width midway; and, though now appearing to be a defined and very perfect cyst, it was collapsed when first removed, the opposing surfaces being slightly adherent. One surface was quite thick, tough, and fibrous, but the other was much thinner; and the membrane extended, as usual, somewhat beyond the cavity. It was situated just to the left of the median line, near the vertex, and was slightly adherent to the dura mater; this latter membrane being rather opaque just at this part, but otherwise healthy, as were the membranes generally. The brain was somewhat depressed by the cyst, and towards the base there was in its substance an effusion of blood about an inch in diameter.

Dr. Jackson spoke of two other cases of this disease that he had examined; one was that of a man fifty-five years of age, who was thrown from a chaise in April and died in June. He struck his head, and, though stunned at the time, and much bruised about the face, he was out again in one or two days. Three weeks before his death he took to his bed with severe headache, which continued as long as he could express his feelings; stupor coming on one or two days after the headache, and becoming at last complete. The urine and dejections were involuntary, but there were no convulsions and no stupor. Hemiplegia of the left side was spoken of, but the upper extremity moved when Dr. Jackson saw him on one occasion with the attending physician. The pulse ranged from 120 to 130. The pupils were dilated, and breathing became quick at last. The cyst extended about the whole length of the right hemisphere, and anteriorly came up to the median line; it was about as thick as the dura mater, to which it closely adhered, though it was readily stripped off. It was so tough that it could not be torn by a very considerable degree of force. Within the cyst were from four to six ounces of dark, liquid blood and soft coagula, somewhat brownish. Otherwise the membranes were healthy, as was the brain, though compressed and stained.

In the case of the Hon. Daniel Webster, Dr. Jackson found a fibrous membrane in each arachnoid cavity, yellowish, œdematous, distinctly vascular, quite consistent, and about a quarter of an inch in thickness, but there was no cyst. The membrane adhered to the dura mater but was readily separated. The vascularity of the membrane was an interesting fact, and especially in the present case, as bearing on the hæmorrhage which is so generally found, though this case was an exception. Mr. Webster was thrown from his carriage in the spring, and died in October, of abdominal disease. His head and arm were injured, and he had headache, but no grave cerebral symptom; his mind being clear to the last.

To the above cases, Dr. Jackson said there might be added one that occurred some years ago, at the Massachusetts General Hospital. A man, aged sixty-five years, received a severe blow upon the back of the head and neck, and had pain from that time. A year afterwards he entered the hospital under the care of Dr. Ellis, with his memory much impaired, and rapid failure of his health the last few weeks. Twelve days afterwards he died comatose; but there never had been paralysis nor anything like an apoplectic attack. The cysts, which are in the museum of the Medical College, extended nearly from the median line to the base of the brain. One, upon the right side, contained about two ounces of thin blood and soft coagula, with some yellow fibrine adhering to the inner surface. Upon the left side the walls of the cyst seemed to have been in contact. Both hemispheres were flattened beneath the cysts, which adhered very slightly, if at all, to the arachnoid, but pretty firmly to the dura mater.

Dr. Jackson referred to the theories in regard to the formation of these cysts. Mr. Hewett's well-known idea was that the blood is first effused and that the cyst is a secondary formation; and this explanation seems to have been generally received in England. Secondly, the reverse of the above is generally believed upon the Continent. Whichever theory is adopted, Dr. Jackson thought it a most remarkable form of disease; for there do not seem to be the symptoms of hæmorrhagic effusion; and if an inflammation of the membranes formed ever so slowly, it would seem as if there ought to be very grave symptoms. In the three cases that have occurred here, and of which the history was known, it will be observed that the disease supervened on an external injury — a connection that has been remarked upon by some writers on the subject.

Dr. Fifield said he had never happened to see one of these arachnoid cysts, but he fancied that blood cysts in other parts of the body were not uncommon. He had, when in London, assisted a surgeon at St. Bartholomew's in removing one from the back, which the operator attributed to a blow.

Dr. Jackson said that he was not aware of what the symptoms of effusion of blood into the arachnoid would be. In a case of the late Dr. Osgood's, where the effusion extended down as far as the cord, convulsions rather than paralysis were the prominent symptom.

Dr. Ellis said that he supposed the Continental theory of these cysts was, that they consisted of a fibrous connective tissue regularly organized with blood-vessels. One of these vessels may rupture, and thus produce the bloody contents of the cyst. It is difficult to believe that a simple clot should become as perfectly organized as the walls of these cysts are. Moreover, their gross appearance is certainly very different from what we find in old clots in other parts of the body.

Dr. White, with reference to the supposed frequency of some antecedent injury, suggested whether, in cases where there had been some injury to the head, this fact would not cause the brain to be examined, when otherwise it might not have been.

Dr. Jackson said that these cysts had certainly been found in cases where there was no history of any injury.

Specimens of Injured Bones. — **Dr. Dwight** showed some human bones, remarkable specimens of the effects of injury and disease, which he had found in the cellar of the building containing the Warren Collection of Natural History. Nothing whatever is known of the history of the specimens, which probably belonged to the late John C. Warren, or perhaps to his father.

The first was a specimen of partially impacted fracture of the neck of the femur; the posterior surface showed the impaction very finely, resembling closely one of the bones figured in Dr. Bigelow's monograph on the Hip; but the anterior surface of the neck appeared to be absolutely longer than normal. The eversion of the foot must have been very great.

The second specimen was one of partial dislocation of the hip resulting from disease. The femur was anchylosed to the pelvis in a position of partial flexion and external rotation. A section showed that the outline of the head of the bone was no longer distinguishable.

The third was a specimen of a scapula, with the head and part of the neck of the humerus firmly united with the front of the glenoid cavity. Had the remainder of the bone been there, it must have extended directly outward. Dr. Dwight thought it probable that in this case the arm had been amputated for an injury accompanied with great violence, which had caused both fracture and dislocation.

The fourth specimen showed a very peculiar injury of the lower end of the humerus. Seen from before, the inner edge of the trochlea appeared somewhat hypertrophied but uninjured, and projected strongly forward; while the remainder of the articular surface was displaced backward, as if it had revolved on a pivot through its outer extremity. From above the coronoid fossa, the bone was normal.

The last specimen shown was one of atrophy of the shaft and upper end of the humerus. The bone was barely three fourths of the normal length, but very strong and with the lower end perfectly formed. The head was very much flattened and distorted.

At the next meeting, DR. JACKSON showed a specimen from the Society's Cabinet, exactly like the last specimen shown by Dr. Dwight. It was so similar, that had Dr. Jackson himself not removed the humerus in the Cabinet, and seen that the other one was normal, he would have been inclined to believe that they came from the same subject. The specimen was from a man aged thirty-five, who had a fracture of the spine. There was a history of open fistulæ about the shoulder joint, but none of any discharge of bone.

DECEMBER 14, 1874.—*Extensive Malignant Disease of Liver without Marked Symptoms.* — DR. WHEELER said that having been present at an autopsy of a patient of Dr. Weeks, of Chelsea, and thinking the case an interesting one, he had invited Dr. Weeks to report the case to the Society at this meeting.

DR. WEEKS said that his patient, a woman, aged seventy-five, had been up and about her work until within three weeks of her death. Four days before her death he was sent for, and found her complaining only of a dull pain, which she referred to the epigastrium. She had no distress after eating, no nausea or cough, and no jaundice. Physical examination showed marked dullness in the right hypochondriac region, extending over to the left side; there was some tenderness over the same region. This tenderness increased, and in consultation, in absence of any marked symptoms, it was thought most probable that an acute hepatic abscess had formed. The patient died on the fourth day from the time Dr. Weeks was first called to her.

Dr. Weeks showed the liver, which was enlarged and filled with cancerous masses varying in size from that of a pin's head to that of a hen's egg. The stomach was healthy, as were the other organs.

Dr. Weeks considered the case a remarkable one, from the fact that such extensive disease remained latent so long, and even towards the end did not produce any marked symptoms.

DR. JACKSON said he had seen several cases in which serious hepatic disease remained latent, without symptoms.

Partial Exsection of both Upper Jaws for Enchondroma. — DR. PORTER reported the case and showed the specimen.

The patient, a gentleman aged fifty-one, of excellent health, first noticed nine years ago a congested condition around the two central incisors of the upper jaw. These were "pivot" teeth, inserted twenty years before, and as they often became loose, he had been in the habit of replacing the pivots by the ends of matches. There finally resulted a necrosis of the alveolar process around these teeth, which gradually exfoliated. Soon a defined tumor commenced in the above locality, which has been growing for three years. It has been for the most part painless, but has doubled in size within six months. The patient's family history shows no record of tumor.

The tumor now involves the upper alveolar arch nearly symmetrically on both sides, from the first molar tooth on one side, to the corresponding tooth on the opposite side, extending nearly up to the infra-orbital foramina, pushing upwards and forwards the nose and upper lip, producing a very considerable deformity.

The operation for the removal of the growth was performed with ether. A Y-shaped incision was first made, the long arm of the Y cutting through the median line of the lip and the short arms extending, one into each nostril. The coronary artery was controlled by a deep temporary suture in each flap. The soft parts on both sides were then dissected up as high as the level of the infra-orbital foramen, and backwards to the tuberosity of the superior maxilla. The hæmorrhage was readily controlled by sponges stuffed into the wound. The second molar tooth on each side was then drawn, the mucous membrane covering the hard palate cut transversely, and the alveolar process and hard palate sawed through from side to side, and upwards quite into the antra. The anterior wall of the antrum and the nasal process on each side were cut through by a few quick strokes with mallet and chisel, the septum nasi severed at the union with the palate process, and the tumor easily depressed and removed entire. A number of large vessels required ligature, though much less blood was lost than would be supposed from the extensive laceration of the soft parts. The wound was brought together by sutures. The pulse remained good throughout.

The tumor, examined by Dr. R. H. Fitz, proved to be enchondroma. The patient made a rapid convalescence, and returned home on the eighth day after the operation.

In four months from the first operation, he noticed a return of the growth on each side of the nose, and when seen two months later, the tumor of the right side was about the size of an English walnut, involving the nasal process of the superior maxilla; that of the left side was similarly situated but less in extent and size, being as large as a chestnut.

Before the operation for the removal of the tumor was commenced, the patient was etherized and tracheotomy was done. Sponges were then introduced into the pharynx to prevent bleeding into the throat. As in the first operation, a Y-shaped incision was made through the middle of the lip upwards into each nostril. The cheeks were freely dissected up, on the right side as high as the inner commissure of the eyelids, and on the left to a level with the floor of the orbit. The bony attachments were then cut with chisel and mallet, the whole nasal process being removed on the right side and nearly the whole on the left. The wound was closed as before. The tracheotomy-tube was left in for a few hours, until all bleeding had ceased, when it was removed and the wound was closed. The patient rallied well from the operation and made a more rapid recovery than on the first occasion, returning home on the seventh day. The tumors, examined by Dr. Fitz, were like the first, but richer in cells.

Dr. Porter said he wished to call attention to but one practical point in the first operation, and that was the small extent of the incision. The Y-shape of the cut through the median line of the lip, into each nostril, made the circumference of the nostril available and gave an abundance of room for the operation; the resulting cicatrix was very small and entirely covered by the mustache. This method of incision, moreover, results in no paralysis of any of the facial muscles. In the second operation, tracheotomy beforehand did away with the constant sponging of the throat consequent upon the character of the operation, and also with the danger from blood in the trachea.

Enchondroma of the jaws is a rare disease, and particularly so that of the upper jaw. Mr. Paget says of enchondroma, "On the jaws these tumors are, I believe, very rare. I know but one specimen on the upper jaw alone, reported in 'Guy's Hospital Reports.'" In the *Dublin Quarterly Journal of Medical Sciences* for November, 1857, Dr. Oscar Heyfelder, of Munich, reports only eight cases of enchondroma out of four hundred and fifty cases of diseases of the superior maxilla, and this number includes the one mentioned by Mr. Paget. In the Records of the Massachusetts General Hospital is a case of enchondroma of the lower jaw removed by Dr. H. J. Bigelow. Heath (Diseases of the Jaws) says, "Cartilaginous tumors of the upper jaw are of uncommon occurrence," and mentions two cases not referred to above. The size of the tumors varied from that of a hen's egg to that of a man's head. In two cases, the nasal process only was removed; in another, the nasal process and anterior wall of antrum; one partial resection (not defined), and one total removal of superior maxilla; in three cases no operation on account of extent of disease. I can find but few reported cases of partial or total exsection of both upper jaws. Partial resection of both bones was done in 1824 by Roger, afterwards by Liston and Dupuytren; but the first total removal of both upper jaws was done by Dr. J. F. Heyfelder, of Munich, who did it three times in 1844, and afterwards in 1850 and 1852.

Fracture of the Neck of the Femur, simulating Impaction.— DR. H. J. BIGELOW showed the specimen and reported the case, which, he said, was interesting as showing how a fracture near the head of the femur might present the signs of an impacted fracture of the base of the neck, and so promise a bony union, which was unlikely to occur. The patient, a middle-aged woman, was in some way injured by a horse-car. She was at first helped into the car, and after riding some distance, and finding herself very lame, was sent home in a carriage and put to bed. Dr. Bigelow, when he saw her in consultation, three weeks afterwards, made a careful examination. He found that the trochanter rotated in the socket, in the arc of a circle which had the head of the femur for a centre; there was no crepitus, slight eversion, and a shortening of an inch. These symptoms pointed to posterior impacted fracture through the base of the cervix. The only other injury which was likely to produce these signs was the rare one of impacted fracture of the head, for the differential diagnosis between which and impacted fracture through the base of the neck there is no guide except its comparative rarity. There was a callous prominence behind the trochanter, which last was an inch too near the spinous process of the ilium.

The prognosis in this case seemed on the whole favorable, although the patient was a feeble one. She got along quite comfortably, and was, at her own request, helped up every day into a chair to vary the depressing effect of confinement to bed. She was thus able to get out of bed every day, from the first day of the accident. Towards the end of the sixth week, however, she sank and died.

The autopsy showed that the fracture was not through the base of the neck, but through the neck itself, close to the head, and that the fragments were "rabbeted" together. There was motion enough to have worn away the thin walls of the neck, and to show that any future bony union, had the patient lived, was not to be hoped for. In this respect it differed from Dr. Gay's case of impacted fracture into the head, where the patient, on the day of his death from pneumonia, a week or two after the accident, lifted up his leg, and said that as far as that went he was getting on well. Had that man lived, he would undoubtedly have had bony union, and a serviceable leg.

The rabbeting of the fragments together was shown very well in the present specimen. It was due to a conical mass of comparatively dense bony tissue projecting from the head fragment, which was driven into the loose cancellated structure of the portion of the neck on the shaft fragment. This dovetailing, although sufficient while the fragments were surrounded by the capsule and soft parts, to prevent crepitus, and to cause the neck and head to rotate in the socket as a whole, did not prevent such attrition of the fragments as would hinder bony union.

AMERICAN SURGERY.

The address recently delivered by Mr. Erichsen at the University College Hospital, on his return from this country, is a well-merited and gracefully delivered tribute to the American medical profession. During his travels last summer, Mr. Erichsen visited a large number of our cities; and although his sojourn in any one of them was necessarily brief, he has succeeded in portraying pretty accurately our prominent characteristics, and more particularly those of that branch of which he himself is so distinguished a member.

His remarks and criticisms cannot fail to be read with as much interest by American surgeons as they doubtless have been by our transatlantic brethren; not merely on account of the high reputation of their author, but also as affording an impartial estimate of our profession from a foreign source.

Mr. Erichsen was particularly struck with the social status of the profession, which, he justly says, occupies a much higher position relatively to the rest of the community than is the case in England. This is undoubtedly true, although the contrast is greater in some other countries, as any American physician who has spent some of his time in study on the Continent of Europe cannot fail to have observed. With us, the leading physician of a place, whether it be a small country town or a large city, always occupies a high social position, and is quite likely to be one of the most prominent and influential men of the community.

Surgery in the United States, he thinks, stands at a very high level of excellence. Not only in the large cities, but throughout the country, the standard of operative surgery seemed to him very high. The bent of the mind of the American surgeon is, he says, like that of the English surgeon, practical rather than scientific; in fact, he finds a striking similarity between American and British surgery. This he attributes to the fact that we have both drawn our knowledge from the same source; that the names of Cooper and the Bells, of Liston and of Brodie, are as familiar to our ears as to those of his own countrymen. We should not forget that the literature of the two countries is practically the same, that every English writer writes for a public of eighty millions. If, as Billroth says, English surgeons stand highest and English surgical literature is the best in the world, we should be gratified by the favorable comparison. The truth is, American surgery does stand very high, and other countries are beginning to realize the fact.

Mr. Erichsen touches upon our system of medical education with a gentle hand, in his desire, perhaps, to point out the bright side only. The imperfections of the British system are also great. It would be well if the work of reform which is germinating here should find imitators in the schools of London; a very thorough change in the present English system would certainly be necessary to attract those strangers who now flock yearly to Vienna and Berlin, as they did in former times to Paris.

The reform in hospital construction has also found England somewhat behindhand. The experience gained in our late war has given us the lead in this movement, and the enterprise of our physicians has produced a vast variety of structures which in the light of future experience will go far towards solving the difficult problem. We have been quick to observe the necessity of this change, and fortunately do not find ourselves to-day with such elaborate and expensive structures on our hands as the brand new St. Thomas's, of London. A considerable part of the address is indeed devoted to a description of our hospitals. Mr. Erichsen thinks the Roosevelt Hospital, at New York, "without exception the most complete medical charity, in every respect," that he has ever seen.

The Army Medical Museum at Washington is spoken of in terms of the highest praise, while elsewhere, except in Boston, he found the museums still in an undeveloped condition.

With the exception of a few great men in our profession, American physicians and surgeons have in times past not been so widely known as those of many older nations. With the present facilities of transportation, we are brought daily in closer contact with all parts of the world, and the fault will be ours if the profession does not take that stand which the merits of our countrymen are undoubtedly able to give it.

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A NEW VOLUME.

It will hardly be necessary to remind our readers that the present number is the first of a new volume; our annual prospectus has already heralded this fact to them in advance, and has, moreover, prepared them in a measure for the holiday attire in which the Journal now appears. We trust that no apology is necessary for what might be looked upon as an unseemly display of youth and vigor at the present advanced age of this venerable periodical; we hope, on the contrary, that these changes will be considered evidence that the JOURNAL has not passed its prime, but that it has gathered, during the half-century of its existence, experience which will give it increased facilities to place before the profession material of a character suited to their present wants, will entitle the opinions expressed to some weight with those who have been familiar with its pages in times past, and will enable it to work with unusual advantages in new fields of labor in the future. Such at least should be the fate of a journal originating from good old New England stock, and sustaining for so many years a vigorous existence.

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THE WARREN PRIZE.

WE would call attention to the advertisement of the Warren Triennial Prize. This was provided for in the will of the late J. Mason Warren, in honor of the memory of his father, John C. Warren. The trustees of the fund are those of the Massachusetts General Hospital, and a committee of the staff of the hospital constitutes the judges. The prize was won for the first time in 1871, by Dr. H. C. Wood, of Philadelphia. No essays were presented for the prize of 1874, for which year the subject proposed was "The Elimination of Drugs by the Mammary Gland." No special subject is given for 1877, but competitors have the full latitude allowed by the will to choose any subject in physiology, surgery, or pathological anatomy involving original researches. The sum offered is a handsome one, and we hope will call out many papers. A prize of this nature may, like the quality of mercy, be called twice blest, as the honor which falls upon the successful competitor is reflected on the memory of the eminent surgeon in whose commemoration the prize was established.

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SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

SINCE the last report (December 5th) operations have been performed under ether in the following cases: —

1. Cancer of the breast. 2. Phymosis. 3. Punctured wound of radial artery. 4. Ovarian tumor. 5. Fistula in ano. 6. Necrosis of femur. 7. Dislocation at shoulder-joint. 8. Deformity of face. 9. Extrophy of bladder. 10. Fissure of lobule of ear. 11. Necrosis of tibia. 12. Caries of vertebræ. 13. Fatty tumor of thigh. 14. Cancer of breast. 15. Double hare-lip. 16. Nævus. 17. Hæmorrhoids. 18. Cancer of breast.

The following operations were performed without ether: 19. Penetrating wound of chest with division of the subclavian artery and vein. 20. Hydrocele. 21. Polypus nasi.

3. The patient was a male negro. While opening a tin can with a pocket

knife, the latter slipped and entered the fore arm about one and a half inches above the wrist. The puncture was followed by a profuse flow of arterial blood. Perchloride of iron was applied by a physician and the arm was bandaged. The patient entered the hospital two days later with a good deal of pain and tension in the fore arm, which was distended, as if by coagulum, as high as the elbow. The original wound was enlarged, and on removing a laminated clot the radial artery was found to have been completely transfixed; it was tied above and below the wound.

4. The ovarian tumor, removed by Dr. Cabot, was a dermoid cyst. The case, when completed, will be reported in full in the JOURNAL.

7. The dislocated shoulder was of seven weeks' standing; the patient, a middle-aged woman. The adhesions were broken by forced rotation, alternately in either direction, with the elbow at right angles. Horizontal traction was now applied to the arm for a few minutes, after which an assistant, standing above the patient, extended the arm vertically upwards, at the same time depressing the shoulder with his foot. The limb being suddenly brought down to the side with the arm of the operator in the axilla, the luxation was found to be reduced. Dr. Bigelow remarked upon the advantage of vertical extension with depression of the shoulder. It pries the head of the bone out of the axilla over the acromion as a fulcrum.

14. With regard to cancer of the breast Dr. Bigelow remarked that when a case was otherwise favorable for operation, as when the disease was not rapid in its growth, or the axilla not largely involved, and when sound skin could be secured to cover the wound, the clinical indications for operation might be enumerated as pain, ulceration, fœtor, and hæmorrhage. But beyond these considerations, others might justly influence the surgeon; among them, a desire on the part of the patient to be rid of the outgrowth; and sometimes a more exceptional motive, as in the present instance. The breast was large, and the disease had extended to the axilla; but the patient had decided to resort to a charlatan and cancer plasters, if it were not thought best to operate at the hospital. To save the patient from this suffering, Dr. Bigelow did not hesitate to perform an operation which he had not recommended. But the skin being sound, the wound would probably do well, although life might not be prolonged as in some more favorable cases.

19. A young man was stabbed at midday in the street, beneath the left collar-bone, about two inches from the coracoid process. The hæmorrhage being profuse the patient fell and fainted. A physician arrived in a short time, passed a finger into the wound, and checked the hæmorrhage, but, as the event proved, too late. The patient was placed in a wagon and brought to the hospital, where he arrived pulseless, with cold extremities, but still gasping. The blood escaped with a jet from the wound when pressure was momentarily removed. Dr. Bigelow, who saw him, passed his finger into the orifice and held the vessels while the wound was largely extended. Both ends of the subclavian artery and vein were then tied. Artificial respiration was at once established, and warm water injected into the vein of the opposite arm. Electricity was also applied to the chest and præcordial region. After all respiration had ceased, the intercostal muscles were again made to contract to

a remarkable degree by dividing the integument and applying the current directly to the muscular fibre. The failure to revive the patient was due, as the autopsy showed, to a penetrating wound of the chest producing pneumothorax with complete collapse of the left lung, which had been transfixed by the stab.

H. H. A. Beach, M. D.,
Surgeon to Out-Patients.

SURGICAL OPERATIONS AT BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, GAY, AND INGALLS.]

The following operations were performed on Tuesday and Friday, December 22d and 25th, 1874:—

1. Exploratory operation for foreign body in the neck. 2. Cock's operation for stricture of urethra. 3. Prolapsus recti. 4. Re-amputation of thigh. 5. Hæmorrhoids treated by galvano-cautery and ligature. 6. Recto-vaginal fistula. 7. Cheloid growth of the scalp. 8. Removal of wire-sutures from an ununited fracture of radius and ulna. 9. Cancer of the breast.

1. A young man seventeen years old received a pistol ball in the back of his neck, November 30. He was examined under ether at the time, by Dr. Gay, who found a small punctured wound, an inch to the right of the median line, on a level with the first cervical vertebra, extending directly inwards to the lamina of that bone. No ball was found. There have been no symptoms of the presence of a foreign body in the neck, pharynx, or vicinity. Dr. Cheever cut down upon a small, hard, movable lump, situated over the anterior edge of the trapezius muscle; the body proved to be a gland. He also examined the original wound, and found necrosis of the vertebra. The ball was not found.

2. Five years ago this man, twenty-nine years old, had gonorrhœa. He has had symptoms of stricture for two years, requiring the catheter at times. He has had one attack of retention since his entrance, on the 14th ult., which was relieved by the aspirator. The stricture is in the bulbous portion of the urethra, and admits only a capillary bougie. He frequently has a prolapse of the rectum from the violent straining to empty the bladder.

Dr. Thorndike performed Cock's operation for "tapping the urethra at the apex of the prostate, unassisted by a guide staff." An elastic catheter was fastened in the wound, thereby giving the bladder a free outlet.

3. The boy is two years old, and has had the prolapse two months; it has been reduced once during this time.

The tumor, which looks not unlike an hypertrophied cervix uteri, is two inches long, surrounded at its upper part by a ring of florid granulations; below, there is a space from which the mucous membrane has been removed by friction, leaving a grayish, unhealthy surface. The sphincter is so weakened by distension that the bowel can be kept in place only by external pressure. The patient having been etherized, the prolapsed intestine was returned, and a compress and T-bandage applied.

Dr. Cheever spoke of the great difficulty of curing these cases in young children. He treated one case successfully with a ring pad and a truss spring, the leverage being over the sacrum. The treatment lasted several months.

4. This man, aged twenty-one, had his right thigh amputated at the junction of the middle and lower thirds, for compound fractures of the femur and ankle joint. The operation was done September 10th, by the antero-posterior skin flap method. Esmarch's bandage and tubing were used satisfactorily to control the hæmorrhage. The tissues were found greatly distended with effused blood at the place of removal. A portion of the flaps sloughed, leaving the bone uncovered. Dr. Thorndike dissected up the soft parts, removed about two inches of the femur, and closed the wound with sutures.

5. Hæmorrhoids in a woman forty years of age. Dr. Cheever tied some of the veins, and cauterized the remainder in the following manner: a tumor was seized with forceps, a clamp was applied, and the tissues burned down to the clamp with the galvano-cautery, nothing being removed by the knife. The hæmorrhage from those tumors treated in this way was so free that it required the application of ferric-alum.

6. The fistula was the result of a specific stricture of the rectum. The patient is thirty-two years old and had had symptoms of obstruction in the rectum for six months previous to her entrance to the hospital in October. At present she has no stricture of the bowel, but a recto-vaginal fistula, situated just above the external sphincter ani, the vaginal orifice being on the left, near the posterior commissure. It has been treated with the galvano-cautery, and by dividing the external sphincter ani. Dr. Thorndike pared the edges of the vaginal orifice and closed it with three wire sutures. He applied the galvano-cautery to the posterior portion of the fistula.

7. The patient is a colored man, aged twenty-four. About a year ago he received a wound from a comb, on the posterior, lower part of the scalp. It never quite healed, and now there is a raised, tuberculated growth, two inches long. It is very troublesome on account of the bleeding and smarting on the slightest irritation. Various applications have been made to it with no benefit. The growth was entirely removed by an elliptical incision, and the wound partially closed by sutures. GEO. W. GAY, M. D.

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LETTER CONCERNING MEDICAL MATTERS IN LYONS.

[FROM AN OCCASIONAL CORRESPONDENT.]

MESSRS. EDITORS: — Lyons, occupying the same position in Europe in regard to the ether question which Boston does in America, and being rarely visited by American physicians, it has occurred to me that perhaps your readers might be interested in a few facts about the place, which during a stay of seven weeks I have been able to see pretty thoroughly.

In spite of the facilities for teaching given by large hospitals, there is no Faculty of Medicine at Lyons, and the profession in the city feel naturally that the second city in France had more claim than Nancy, with its thirty thousand inhabitants, to which the Strasburg school was transferred after the cession of Alsace and Lorraine. During the last session of the Assemblée Nationale a bill was introduced, and reached a second reading, to establish a full Faculty, instead of the Primary Medical School which now exists. Hopes are entertained that the bill may be gotten through in the next session, but the opposition from the Paris Faculty and other quarters is strong.

The civil hospitals, four in number, and with accommodation for about three thousand five hundred patients, including the insane, are all under one administration, which is entirely independent of either the general or the city government, and which has large means at its disposal — an income of about seven million francs a year, I am told.

The Hôtel Dieu is situated very centrally, with a long façade on one of the quais of the Rhône, and has about twelve hundred beds for general medical and surgical cases in all persons above sixteen years of age, and affected with diseases other than mental, venereal, or cutaneous. Almost all the beds are entirely free, without departmental, or even national, distinction, and hence they get a good many patients from a distance. The building is enormous and the wards are in proportion, there being at least four which contain a hundred beds each. The administration would like to sell it, and build a new hospital on modern and hygienic principles, but the city has only twenty millions of francs, and the state has apparently enough barracks.

One of these hundred-bed wards forms part of the service of M. Ollier, whose visits, as you may imagine, I followed frequently. Unfortunately for the hospital, his term of service (the surgeons are appointed for eighteen years) expires January 1st, 1875, and I am told that there is but small chance of his getting a prolongation. You see that we Americans do not stand alone in the principle of rotation in office, and the result in this case is that M. Ollier, at forty-five years of age, will be deprived of those means of advancing surgical science which only a hospital service affords.

Ether, which does not strike me as being of so good a quality as that to which I have been accustomed at home, is given fearlessly enough on a sponge inclosed by a bladder, which bladder is again inclosed in a cloth bag. Air is admitted through one or two small holes. In comparison with us, they save ether, but lose time. But it is refreshing to see again a patient thoroughly anæsthetized, when undergoing an operation, after the half measures which the fear of chloroform brings about in Vienna.

I was particularly struck with the rarity of accident surgery. The fact that the great manufacture of Lyons is in the true meaning of the word a *manufacture* — only the plainer and cheaper qualities of silks are woven by steam — no doubt has something to do with this. Another element in the problem is that the French are not nearly so reckless in their management of railways and machinery as we are. Perhaps when wine becomes the ordinary, as whiskey is now the extraordinary, drink of our working classes our hospital surgeons will have more undisturbed nights.

During this last summer there was a great deal of typhoid fever here, and the treatment by cold baths was very largely employed. All those with whom I have talked have expressed themselves as very well satisfied with the results, but as the statistics are not yet ready for publication I can give you no figures.

The Charité Hospital includes the medical and surgical services for children, the maternity, a ward for epileptics, and one for the aged poor of both sexes. "We etherize with chloroform," said the surgeon-in chief to me. He asked me how long it generally takes with us to produce complete anæsthesia with ether, and on my replying, five minutes, he disappeared for an instant and came back with a small boy and the request that I should make a demonstration. The best sponge I could find was but poorly suited for the purpose, but owing to good luck the boy was perfectly insensible in about two and a half minutes, a result which seemed to surprise the surgeon and internes.

The Hospice de l'Antiquaille is high up on the precipitous right bank of the Saône, with good air and a fine view, but the building is very ill adapted for a hospital, and the male venereal wards are frightfully dirty. The hospital is for venereal and cutaneous diseases and for the insane, also for scrofulous children. M. Diday's term of service expired some time since, so I did not have the pleasure of seeing him, but found MM. Gailleton and Dion, the surgeons-in-chief, most polite and friendly, as indeed were all of the profession with whom I came in contact in Lyons.

The hospital of La Croix Russe is a new and well-built hospital for medical cases only, and for the inhabitants of the quarter of the Croix Russe; but it is this quarter in which almost all the silk weavers live. This hospital contains about five hundred beds, and is much nearer what a hospital ought to be, in regard to construction, than any other in the city.

It remains for me to mention the convalescent hospital of Ste. Eugénie, in connection with the Hôtel Dieu and the Croix Russe. It is admirably situated and arranged, is about five miles from the city, has a large room for exercise during bad weather, a reading-room, and room for games, besides a large and pleasant garden. It was founded by the ex-empress, and accommodates about seventy-five patients. Near this, suitable buildings are in process of construction for the insane and the aged poor, who will be provided for here instead of in the city.

I had the pleasure of seeing and talking with M. Chauveau in his laboratory at the veterinary school a number of times. As it was vacation and extensive repairs were under way, no experimental work was going on. During the last year he has made very extensive experiments on the transmission of tuberculosis to animals both by inoculation and by ingestion, and means to continue them this winter.

In conclusion I will merely say that I can recommend Lyons to any one with the same object which I had in view on going there, namely, to gain some insight into French medical practice, and to study French without continual temptation to speak English. FREDERICK C. SHATTUCK.

BERLIN, *November* 10, 1874.

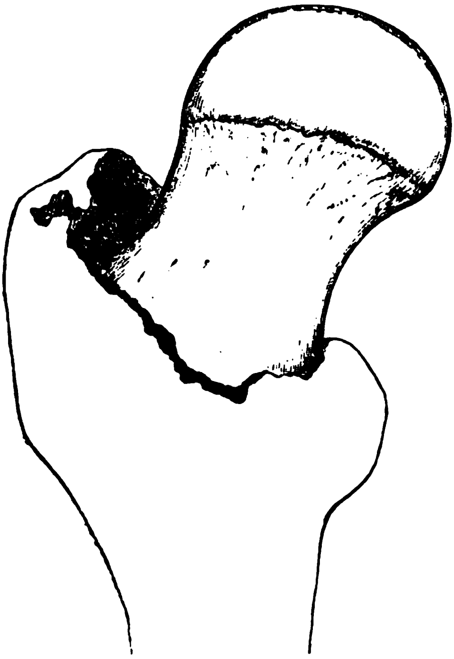
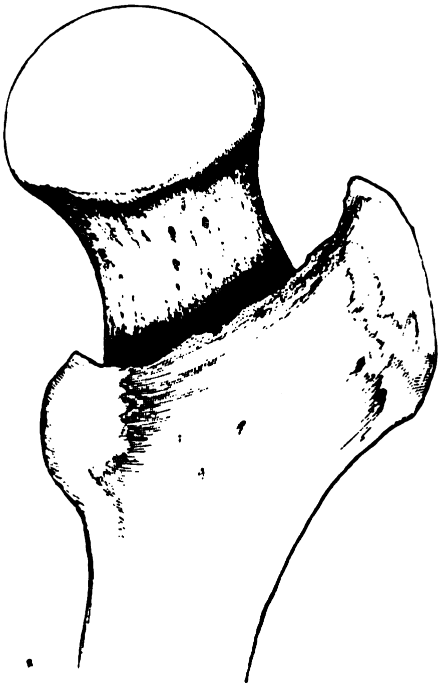


Fig. 7.



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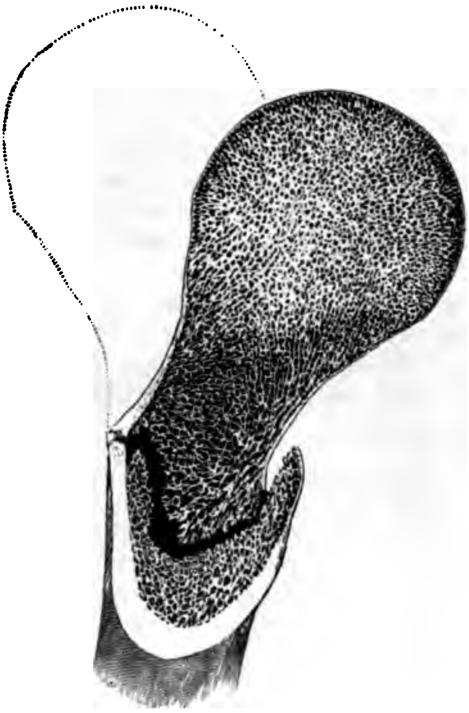

Fig. 9.

For the explanation of figures, see p. 32.

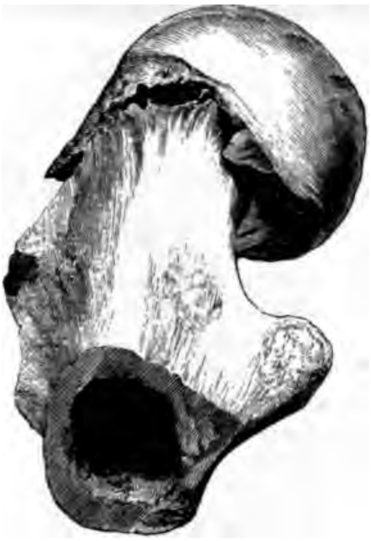

Fig. 10.

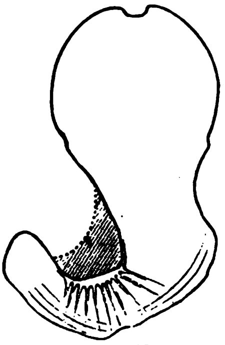

Fig. 13.

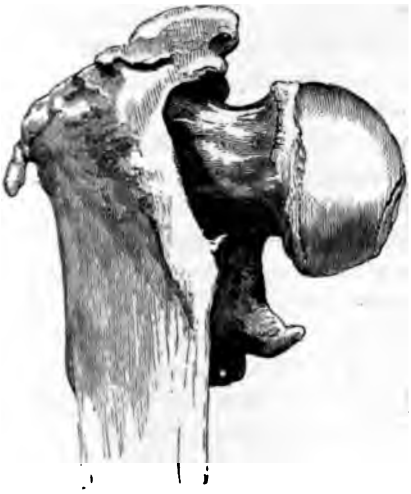

Fig. 11.

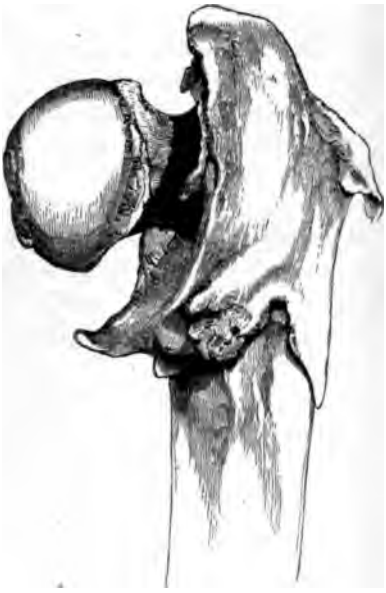

Fig. 12.

THE BOSTON
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VOL. XCII. — THURSDAY, JANUARY 14, 1875. — NO. 2.

THE TRUE NECK OF THE FEMUR: ITS STRUCTURE AND PATHOLOGY.[1]

BY HENRY J. BIGELOW, M.D.

II. — PATHOLOGY.

IMPACTED FRACTURES.

POSTERIOR IMPACTED FRACTURE OF THE BASE OF THE CERVIX.[2]

THE posterior impacted fracture of the base of the cervix often occurs in old people. I have met with it also in middle life, and do not hesitate to express the belief that it is the most common of the fractures of the neck of the thigh bone. That it has not been so considered may be explained by the following considerations: —

1. It has been generally recognized only of late years.
2. The injury may be a comparatively slight one.
3. Its signs are in some cases a shortening and eversion hardly perceptible.
4. When it unites, there may be no lameness to attract subsequent attention.
5. When it proves fatal before union, the impaction may have been disengaged by manipulation or otherwise, during life or after death, — especially by macerating the specimen for preservation.
6. On the other hand, unimpacted fracture of the small part of the neck, usually supposed to be most common, is marked by prominent symptoms: it entails great and persistent lameness, inviting attention and examination after death, however remote, and the specimen when obtained is unmistakable.

The displacement varies greatly in degree. One wall only — the posterior one — is impacted at the intertrochanteric line, where the bone is a mere shell, driving the true neck, or the remains of it, farther beneath the trochanters, and sometimes detaching the latter. The firm anterior wall resists impaction, but bends at the line of fracture as a hinge. If this hinge were vertical, the shaft would be only everted; while if it were transverse, the neck would be only bent and the leg shortened. But as the hinge stands at an angle of about 45°, shortening and eversion are nearly equal. Impaction, when slight, is detected by a difficulty of inverting the foot rather than by actual eversion ; and the shortening may seem doubtful.

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[1] Concluded from page 5.

[2] Figs. 7, 8, and 9.

It is needless to say that the rotated trochanter still sweeps through an arc of which the head of the femur is the centre, and that there is no crepitation. Shortening and eversion, however inconsiderable, point directly to this lesion. A large number both of cases and of specimens are referrible to this type, — impaction behind, with a hinge in front, each at its respective intertrochanteric line. In some of these specimens the neck is bent down nearly to a right angle with the shaft.

The remaining varieties of fracture of the femoral neck are susceptible of classification, and deserve, for the purpose of comparison, to be mentioned in this connection.

IMPACTED FRACTURE OF THE HEAD OF THE FEMUR.[1]

The impacted fracture of the head of the femur is rare, and I do not believe it possible to distinguish it from that just described, even if it were desirable to do so. In three cases I have known, there was the same shortening and eversion, and the same comparative ability to move the limb. A woman who has just died of the injury was able to get into and out of bed with but little assistance, and the trochanter, when rotated, swept through its arc. There was no union. The small extremity of the cervix was rather "rebated" than impacted with the head of the femur, and the fracture was "within the capsular ligament."[2]

The firmness of the fragments in such a case is chiefly due to the dense central cone of spongy tissue which projects from the head of the bone and impacts itself in the friable cavity of the cervix. If the cylinder of the cervical portion is simultaneously impacted into the head of the femur, around the base of the cone, immobility is doubly insured.

I have elsewhere expressed the opinion that these conditions are essential to the very exceptional occurrence of bony union of the small part of the cervix. In default of anchylosis, the neck is doubtless absorbed, presenting, after a time, the familiar conditions of an old "ununited fracture." So that permanent lameness may result from a fracture which, by simulating impaction of the base, promises, at first, bony union, with comparatively little deformity.

IMPACTED FRACTURE OF THE WHOLE BASE OF THE CERVIX WITH INVERSION.[3]

The very rare impacted fracture of the neck with inversion, instead of eversion which is the rule, occurs when the neck in front slips off its hinge into the cavity of the shaft. This is hardly possible, as I have elsewhere shown, unless the whole posterior intertrochanteric mass, including the trochanters, is fairly detached.

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[1] Fig. 10.

[2] See extracts from the Proceedings of the Society for Medical Improvement, this JOURNAL, No. 1, 1875, p. 20.

[3] Figs. 11 and 12.

UNIMPACTED FRACTURES.

FRACTURE OF THE SMALL PART OF THE CERVIX OF THE FEMUR.

The fracture of the small part of the cervix of the femur, which has been usually described as the most common fracture of elderly people, and erroneously as deriving importance from being within the capsular ligament, is a loose fracture, with no interlocking to maintain the immobility of the small extremities, even were they disposed to bony union. Familiarly characterized by increased motion, great pain and disability, much shortening, marked eversion, and the rotation of the shaft upon its axis instead of through an arc, it is not likely to be mistaken even at first sight. But its relations to the capsular ligament are probably uncertain, owing to differences in the size and insertions of the latter.

COMMINUTED FRACTURE OF THE TROCHANTERS AND SHAFT.

Lastly, when the trochanteric portion of the femur is comminuted, the detached neck and head of the bone may be very variously placed in bony union, both as to angle and as to the part which becomes subsequently attached to the shaft.

In completing the list of injuries to be borne in mind while examining a hip with reference to impacted fracture, we may enumerate dislocation, sprain, crack, the rare separation of the epiphyses, and the fracture of the acetabulum into the pelvis.

TREATMENT.

A few words of a practical character may be added here. Apart from dislocation, the main object of examination is to decide, with reference to treatment, whether a fracture is loose or impacted. I have demonstrated here and elsewhere the following points, illustrating the difficulty of further diagnosis: —

1. The common impacted fracture of the base of the neck and the rare one of the head may be indistinguishable from each other. 2. A fracture seemingly impacted and promising bony union may yet result in ligamentous union with corresponding lameness. 3. In loose fractures with great shortening, it may be sometimes difficult to distinguish a fracture of the small part of the neck, which does not promise bony union, from that of the trochanters, which does.

But while an accurate diagnosis of such cases is sometimes absolutely impossible, no embarrassment need be felt in the treatment of these injuries. Their treatment is simple.

If to extend a limb means to draw it down, impacted fracture and whatever resembles it should never be extended; but only steadied by weight or splint. On the other hand, a loose fracture with decided shortening should be first drawn down to something like its normal length. Or, more briefly, treatment consists in immobility, with the previous extension of a loose fracture.

A careful review of these injuries thus leads back to a practical rule already usually adopted. But it leads further, and demonstrates conclusively that prolonged and active flexion and rotation of the hip, in search of positive signs, is more than superfluous. Without anæsthesia it entails needless suffering, and with or without it, by loosening impaction or lacerating tissues, it may be disastrous.

The question of dislocation settled, a very brief and gentle examination is alone admissible; chiefly to determine (1) the degree of shortening, (2) whether the shaft rotates through an arc or on its axis. The most useless and damaging examination is that by quick and persistent rotation, and by flexion of the thigh as far as a right angle.

The prognosis, if the patient lives, is favorable for bony union, except in the case of loose fracture of the small part of the cervix, which, if not readily distinguished, had better be disturbed as little as possible.

Familiarity with the posterior impacted fracture of the base of the neck will remove the most frequent source of doubt in the diagnosis of injuries of this region; and the sooner the old classification "intra and extra capsular fracture" is abandoned, the better it will be for science, for diagnosis, and for treatment. In the interest of the patient and of treatment the question should be, "Is the fracture loose or impacted?" and science is often compelled to rest satisfied when this is settled.

EXPLANATION OF FIGURES.

Fig. 7. Front view of right femur showing the fractured cervix bending like a hinge at the anterior intertrochanteric line, to allow the posterior impaction. The head of the bone leans more distinctly from the observer than the perspective indicates.

Fig. 8. Rear view of same, showing the cervix impacted beneath the posterior intertrochanteric line. The head of the bone leans towards the observer.

Fig. 9. Horizontal section of the same, showing the anterior hinge and the posterior impaction. The dotted line shows the normal position of the head. The patient who furnished the specimen from which these figures were taken was seventy-two years of age. It will be seen that the prolongation of the true neck has disappeared by senile atrophy, leaving only a few radiating lamellæ. The specimen is of exceptional interest as showing this form of impaction with little comminution or other injury of the bone.

Fig. 10. Impacted fracture of the head of the femur. The patient who furnished this specimen died of pneumonia in two weeks.

Figs. 11 and 12. Impacted fracture of the base with inversion. The anterior view (Fig. 11) shows the neck slipped off its thick hinge, into the cavity of the shaft. To allow this, the whole trochanteric mass must have been detached, as seen in the rear view. (Fig. 12.)

Fig. 13. (See first half of this paper.) Diagram of a section of the head of the femur of a sheep, showing a deep trochanteric fossa. If this fossa were filled with spongy tissue (as seen beneath the dotted line), the posterior neck would be partially concealed, as in the human femur. The analogy, whether true or not, is too striking to be overlooked. A deeper fossa exists in certain animals, especially South African ruminants, of which I examined sections in the Hunterian Museum in 1868. In this specimen the tendon inserted at the bottom of the fossa is prolonged into the spongy tissue by radiating lamellæ which intersect concentric arches as represented in the diagram, and resist traction to great advantage.

In examining a number of preparations lately made by my friend Dr. Dwight, I am satisfied that the tendency of what I have called the true neck is to attach itself below, where it becomes thin, as a tangent to the inside of the cylinder of the shaft; and also that it may be tolerably well pronounced in a subject six or eight years of age.

A CASE OF IMMEDIATE TRANSFUSION.

BY JAMES R. CHADWICK, M. D., OF BOSTON.

Mrs. M. N., thirty-two years of age, entered the Massachusetts General Hospital on May 27th, 1874, eleven weeks after the delivery of her second child. The labor had been short, but attended by profuse hæmorrhage; this hæmorrhage had recurred frequently until two weeks before her entrance to the hospital, when it ceased. The convalescence had been satisfactory in other respects, so that she was able to be out at the end of the third week. The repeated losses of blood, however, soon began to undermine her health, previously robust, until she was completely blanched, had a persistent headache, and frequent attacks of syncope; she was in this condition on entering the hospital. Bowels constipated, pulse 108, urine dark-colored.

May 28th. Iron, eggs, broth, and two ounces of sherry three times daily were ordered. Dr. F. Minot, in whose ward the patient lay, invited me to perform transfusion, if I thought advisable. On learning her history, I declined to operate until the ordinary methods of treatment had been tried and found inefficient, not deeming the case a favorable one for transfusion.

On June 2d she was failing, had had nausea and vomiting all night.

June 3d. Less vomiting. Dr. Minot notified me that she was sinking. In view of this I agreed to operate on the following morning. At 6 o'clock P. M. I took these notes of her condition: Great emaciation, sallow waxy complexion, extreme prostration; pulse 118, respiration 30, temperature, 102.8°. A loud souffle with the first sound of the heart was considered to be anæmic. No bruit du diable over the jugular veins. Areas of hepatic and splenic dullness were not enlarged. A drop of blood from her finger was seen to be very deficient in color; under the microscope, the number of both red and white corpuscles was found to be greatly diminished when compared directly with healthy blood. Urine normal, no albumen by nitric acid test; urophæin increased, uroxanthin normal. With microscope no casts, but very few and doubtful disintegrated blood corpuscles.

June 4th. *Operation*, with the assistance of Drs. Minot, Ellis, Lyman,

C. P. Putnam and J. J. Putnam, of Boston, E. J. Forster of Charlestown, L. Wheeler of Worcester, and a number of house-officers and students. Dr. J. J. Putnam furnished the blood. Aveling's instrument for immediate transfusion was used. Dr. Putnam, having seated himself upon a stool beside the bed, extended his left arm by the side of the patient's right arm. A fold of skin over the median basilic vein of the patient was then raised and a transverse incision made: the wound gaped so as to expose the vein to view. The anterior wall of the latter was raised by the forceps, and a V-shaped cut made with the scissors. The afferent nozzle was next taken from the basin, with the fore-finger closely applied to its external end to prevent the escape of the warm water; it was inserted into the vessel without difficulty, and intrusted to an assistant. A direct longitudinal incision was then made into Dr. Putnam's median cephalic vein, but the attempt to introduce the efferent nozzle failed, despite persistent efforts, owing, I believe, to the bifurcation of the vessel just below the opening. Dr. C. P. Putnam now offered his arm, and a similar cut was made directly into the left radial vein; the nozzle, however, could not be inserted until a slight transverse incision had been made in the integument. The afferent nozzle had by this time become filled with blood, so that it had to be withdrawn from the patient's vein, cleared of the clots, refilled with water and reinserted. The rubber tube, likewise filled with warm water, was then affixed to the nozzles, and the process of transfusion inaugurated by the injection ot the syringeful of water into the vein, and prosecuted by the repeated filling and emptying of the bulb.

According to the printed directions, sold with the instrument by Messrs. Krohne and Sesemann, of London, the bulb should hold two drachms; on this assumption I based my calculation as to the amount of blood transfused, but a recent measurement of my bulb reveals its capacity to be precisely four drachms, a discrepancy of most vital importance, and one which, in my opinion, contributed largely to bring about the fatal result hereinafter recorded.

The following notes were taken during the operation: —

After sixth evacuation of bulb, pulse 118, some nausea, patient complains of heart-beat and backache. More color in lips and cheeks.

After eleventh, pulse fuller, now 108.

After thirteenth, pulse fuller, now 104; bulb empties less freely.

After nineteenth, pulse 104.

After twentieth, bulb does not fill readily.

After twenty-second, operation terminated.

Some retching after withdrawal of nozzle.

During the operation, Dr. Ellis applied the stethoscope to the chest several times, but failed to detect any change in the character of the respiration or of the heart-sounds. The anæmic souffle was unaffected.

Some difficulty was experienced in stanching the flow of blood from the incised vein. Before I left, the patient expressed herself as feeling much better and stronger than before the operation; she was free from headache or backache.

For the subsequent notes I am indebted to Mr. W. F. Whitney, medical house-officer of the hospital.

10 A. M. Severe rigor, lasting nearly an hour. Extra blankets, brandy, heater to feet, and sulphate of morphia, one fifth of a grain subcutaneously, afforded relief. Brandy punch (ʒj.) was ordered to be given every hour.

10.30 A. M. Temperature 106.3°.

11 A. M. Temperature 106.4°.

11.30 A. M. All oozing from wound has ceased. Pulse 134; temperature 105.3°.

12 M. Has been vomiting constantly for the last hour. The bandage about the wound is found to have become loosened and at least four or five ounces of blood to have escaped into the bed. A ligature is put around the vein. Some vomiting.

1 P. M. Temperature 104.2°.

3.30 P. M. Vomiting ceased at 3 P. M. Patient is now delirious.

4.30 P. M. Comatose; temperature 103°.

June 5. 8 A. M. Comatose during night; now conscious, recognizing husband. Stimulants. Failed during the day, and died at 7.30 P. M.

Autopsy by Dr. Fitz, twenty-six hours after death; the following are his notes: —

Skin very pale. A watery blood is pressed from the proximal portion of the incised vein. Right hand moderately œdematous.

Acute Internal Pachymeningitis. — Inner surface of the dura mater on both sides shows patches of a thin, delicate, translucent false membrane, very readily detached and containing numerous minute hæmorrhagic spots.

Increased Fluid in Pericardium. — About two ounces of clear yellow fluid in pericardium.

Anæmia. — The heart, in common with all the other organs of the body, except the spleen, is extremely anæmic. The valves and cavities are healthy; no thrombi in the latter, nor are any found in the pulmonary arteries after careful search.

Spotted Fatty Degeneration of the Heart. — Almost the entire inner surface of the left ventricle is spotted with minute yellowish-white opaque points. A section through the walls reveals a similar appearance, but the spots are more thickly clustered and extend into the substance for at least two thirds of its thickness. The right ventricle is in a like condition but to a considerably less extent. The microscope shows these spots to be due to fatty degeneration.

Œdema of Lungs. — Lungs extensively œdematous. Kidneys pale. Tubules of cortex indistinctly separated. About one third of right kidney is atrophied; the surface is depressed, granular, dirty red, and tough. The veins leading from this part are filled with a firm, decolorized, adherent thrombus, similar to that found in one of the uterine veins, both being unmistakably of long standing.

Retrogression of Uterus. — Uterus of normal size. Walls cut with greater ease than usual; surface of section opaque. The membrane lining the cavity presents a tripe-like aspect from the intersection of slightly elevated red ridges.

The urine taken from the bladder at the autopsy was analyzed by Professor Wood with the following result: Color slightly smoky. Reaction slightly acid. Specific gravity, 1012.° Much sediment. Urophæin diminished. Uroxanthin increased. Urea, chlorides, and uric acid diminished. Sulphates, earthy and alkaline phosphates normal. Albumen about one per cent. Sediment is chiefly bladder epithelium. Considerable pus. Few renal epithelial cells. A few brown, coarsely granular, and hyaline casts. One blood corpuscle seen in six specimens. The casts were chiefly large, but some were of medium and small size. Hæmatin was present, as shown by brown coagulum of albumen on heating, and also by brown precipitate with sodic tungstate.

Remarks. — Neither the train of symptoms presented by this patient, nor the pathological changes found post mortem give a clew to any serious malady other than universal fatty degeneration. The atrophy of one kidney was clearly connected with the thrombosis of the renal and uterine veins, and may unquestionably be referred to the early days of childbed; there was no indication that the functions of the kidneys were impaired. At the autopsy, the most careful search throughout the whole vascular system failed to discover any clot that could awaken a suspicion of embolism such as might be caused by coagulation of blood in transit through the tube. No froth or air-bubbles were found in the vessels.

The fatty degeneration of all the internal organs, and especially of the heart, was the direct result of imperfect nutrition, due to the frequent losses of blood. The diminution in the volume of the circulation, which is the first effect of a hæmorrhage, is soon corrected by the osmotic extraction of serum from all the tissues of the body, but a corresponding deterioration in the quality of the blood results. This poverty of the blood, nature can rectify, if she is given time. Multiply the large losses of blood at short intervals, however, and she succumbs in the effort to make good the extraordinary waste; not only does nutriment fail, but the circulating medium, by means of which it is distributed throughout the economy, is wanting. No wonder, then, that the system is poorly nourished, and soon becomes too far reduced to carry on the functions of life. This dependence of fatty degeneration upon frequent losses of blood has been recently pointed out by Gusserow,[1] Ponfick,[2] Perl,[3] and others. Ponfick describes the identical spotted fatty heart — of normal size and sound valves — found at our autopsy, as occurring particularly in women who have lost much blood in childbed. According to him, it is associated with a marked reduction in the number of the red blood corpuscles and in the amount of fibrine. Dropsy is almost constant. Perl succeeded in developing this fatty degeneration of the heart in dogs, by bleeding them a few times to a great extent. When small amounts of blood were abstracted quite frequently, no such result was obtained.

The direct practical bearing of these remarks becomes apparent when we realize that the introduction of blood into the vascular system, when it is already filled to about its natural capacity, is quite a different matter from infusing blood when the vessels are empty and collapsed. In the former case, the vascular tension is increased far beyond the normal; the cavities of the heart are obliged to dilate far beyond their natural limits, and must then contract with more than their habitual force in order to propel the augmented volume of the circulation through the comparatively narrow channels. In short, a severe task is imposed upon the heart, for which, in such instances as the present, it is incapacitated by disease. By transfusion we seek to better the quality of the blood, but this end may generally be compassed by other means, so that we have no right to employ transfusion, with its attendant risks, until the other remedies have failed.

The fatal termination in this case was certainly inevitable, but was in all probability hastened by the shock of the operation and the subsequent hæmorrhage, with the attendant mental perturbations, but more particularly by the direct strain to which the heart was subjected by increasing the volume of the circulation.

These views had not taken so definite a shape in my mind before the operation; yet for these very reasons I had designed to restrict the amount transfused to six ounces. In this I was foiled by the erroneous statement of the description bought with my instrument. I transfused eleven ounces instead of six as I supposed, an error — as may be inferred from what has gone before — most prejudicial to the chances of the patient. Recent reflection has convinced me that transfusion is attended by great risk in chronic cases associated with fatty degeneration of the heart, and that this state of the heart is to be suspected in all patients who have been subject to repeated losses of blood. If we decide to employ transfusion, in spite of this unfavorable element, the danger must be as far as possible averted by the introduction of a very small amount of blood at one time, and repeating the process later if required; or the poor blood of the patient must be allowed to escape from one arm, while the healthy blood is being injected into the other.

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[1] Archiv für Gynaekologie, 1871, page 218.

[2] Berliner Klinische Wochenschrift, 1873, No. 1.

[3] Virchow's Archiv, 1874, page 39.

Acting upon these convictions I have advised against the operation in several consultations to which I have been summoned during the past summer. On one occasion I was persuaded to go sixty miles to transfuse lamb's blood into the veins of a consumptive. I went after repeated solicitations and a distinct disavowal — on my part — of any belief in the curative agency of transfusion in such diseases. On examining the patient I found, in addition to extensive disease of both lungs, very labored action of the heart, and obtained the history of much pain and distress in the cardiac region, and a number of fainting turns during the previous month; the patient was likewise greatly emaciated. I represented to the man the peculiar danger which would attend the transfusion of blood into his veins, and finally persuaded him to renounce the project. A month later, however, a more daring surgeon from New York, a German, successfully transfused six ounces of lamb's blood into the patient. My prognostications of the exceptional risk were fully verified by the unusual symptoms subsequent to the operation. There were "sharp pains throughout the back, chest, and limbs" immediately after the operation; on the next day, again "acute pains in the back;" on the following morning, "two fainting spells in quick succession," and a pulse of 130; on the fourth morning, "palpitation of the heart" for half an hour, and again in the afternoon lasting two hours. Since that date no untoward symptoms have occurred, but the patient has recently published a card in the local journals announcing that his condition has not been improved by the operation, and warning others from trying the experiment.

Aveling's instrument worked well. The slight obstacle to the emptying of the bulb after the thirteenth evacuation I attributed at the time to a tilting upwards of the external end of the afferent nozzle in the hands of my assistant, whereby the oblique internal opening was forced against the wall of the vein and thus closed as by a valve. To this view I still hold. The tardy filling of the bulb after the twentieth evacuation may fairly be set down to the anæmic condition produced in the blood-donor after the loss of eleven ounces of blood. The difficulty of obtaining a steady flow from an incised vessel was, I am told, often experienced in the days of frequent blood-letting. I can quite understand, however, that these explanations may not seem satisfactory to those who look with disfavor upon immediate transfusion.

In conclusion let me ask whether the fact that eleven ounces of blood were infused without sensibly modifying the anæmic souffle, taken in connection with the fatty degeneration of the heart, does not throw a little discredit upon the theory that this souffle is due to the impoverished condition of the blood? May not further investigations demonstrate that it is symptomatic of a fatty heart?

RECENT PROGRESS IN MEDICAL CHEMISTRY.[1]

BY E. S. WOOD, M. D.

Phosphorus. — On account of the powerful attraction which phosphorus has for oxygen, when the former is in a state of minute subdivision, as is frequently the case in substances suspected to contain it as a poison, and on account of the fact that that property of phosphorus which is chiefly relied upon in Mitscherlich's test (its phosphorescence) can be prevented by the presence of many substances, such as turpentine, the generally accepted antidote, it is extremely desirable to have a good method by which phosphorus can be effectually isolated from organic mixtures without danger of becoming oxidized during the process. In addition to the method of D. A. Van Bastelaer,[2] L. Dusart contributes another[3] which has the advantage of enabling us to preserve for any desired length of time the phosphorus in the form of a stable compound; with this compound one of the characteristic reactions of phosphorus can be obtained, and its non-oxidation is insured. This process depends first, upon the ready solubility of phosphorus in a mixture of equal parts of bisulphide of carbon, ether and alcohol; secondly, upon the easy formation of a compound of sulphur and phosphorus, which is oxidized much less easily than free phosphorus; and thirdly, upon the precipitation of the sulphide of phosphorus thus formed by metallic copper, a compound resulting which can be preserved for an indefinite period, and which, when subjected to the action of nascent hydrogen, disengages phosphoretted hydrogen, an inflammable gas which burns with a green flame.

The process is as follows: To the liquids to be examined is added the mixture of alcohol, ether, and bisulphide of carbon, in which one half per cent. of sulphur has been previously dissolved, in successive portions. This solution is added until it forms an emulsion with the organic liquids. The solids to be examined are finely divided, covered with the solution, and repeatedly shaken. After twenty-four hours' contact, the bisulphide of carbon solution is removed, and the residues treated in the same manner a second and a third time. The mixed bisulphide solutions are filtered rapidly into a retort, and metallic copper freshly reduced by hydrogen is added. Sufficient copper has been added when the last portions remain brilliant after warming a few minutes on a water-bath. This liquid, after standing twenty-four hours, should be distilled over a water-bath. After the distillation, there remains in the retort a little water, fatty matters which float on the surface of the water, a certain amount of extractive matter, and the compound of copper with the sulphur and phosphorus. These collected on a filter should be washed with alcohol and then with ether; this process removes the fat and leaves the copper compound as a black, brilliant substance which undergoes no perceptible alteration when exposed to the air. When this substance is placed in a Marsh's apparatus in which hydrogen is being generated, phosphoretted hydrogen is given off, which burns with a green flame. Sulphuretted hydrogen is also formed, and must be separated by passing the mixed gases through a tube filled with pumice-stone saturated with a strong alkaline hydrate. By this method, the phosphorus was detected in the paste made by mixing the ends of two matches with sixty grammes of bread, fatty matters, and like substances.

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[1] Concluded from page 12.

[2] See this JOURNAL, January 1, 1874.

[3] Journal de Chimie Médicale, September, 1874.

The following question arose in France in consequence of a report of chemical experts who, finding in the organs of a cadaver, after death under suspicious circumstances, free phosphoric acid and an excess of crystals of triple phosphate, stated as their opinion that the probable cause of death was phosphorus poisoning: "In the absence of the slightest trace of free phosphorus in the suspected matters, and also in the absence of all characteristic post-mortem appearances, such as fatty degeneration of the liver, can experts conclude that phosphorus poisoning has taken place, because they have observed an abnormal amount of phosphoric acid and ammonio-magnesian phosphate in the substances submitted to chemical analysis?" This question was referred to a commission consisting of MM. Gaillard, Grassi, Roucher, and Jules Lefort, who reported as follows:[1] "The proportion of phosphoric acid found in the suspected matters submitted to chemical analysis is no convincing proof that poisoning by phosphorus has taken place." And, further, that "neither the presence nor the quantity of phosphoric acid and crystals of ammonio-magnesian phosphate in the suspected matters can be considered as proofs of poisoning by phosphorus."

Analogy between Phosphorus, Arsenic, and Antimony. — Dr. Ch. Roucher refers[2] to a case of mild arsenic poisoning reported by Dr. Gaillard which has several points of interest. Fowler's solution was prescribed for a patient, twenty-two years of age, for an obstinate eczema. Fifteen drops were ordered morning and night for fifteen days, fifteen drops three times a day for the next fifteen days, and after that twenty drops three times a day. This corresponds to about one quarter of a grain of white arsenic for the first fifteen days, one third of a grain for the second fifteen days, and one half a grain daily after the first month. The result was that the first doses were tolerably well borne, there being only slight disturbance of the stomach. The forty-five drops daily caused vomiting and more intense pain in the stomach. The sixty drops daily could not be borne, and as the skin disease was not cured, the patient gave up the treatment. A short time afterwards, however, the eczema disappeared. The arsenic caused some pain in the limbs with symptoms of paralysis. After omitting the Fowler's solution, the paraplegia increased instead of diminished. This being attributed by Dr. Gaillard (who first saw the patient five weeks after the omission of the Fowler's solution) to the continued presence of arsenic in the system, an examination of the urine was made and arsenic detected. Its elimination by the kidneys continued for six and one half weeks after discontinuing the medicine. Seven and one half weeks after its omission, no arsenic could be detected in the urine. After this period the paralysis rapidly disappeared.

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[1] Journal de Pharmacie et de Chimie, July and August, 1874.

[2] Annales d'Hygiène, October, 1874.

This case is remarkable, first, for the tolerance of such large doses by one unaccustomed to its use; and, secondly, for the slowness of the elimination of the poison. Different authors give the time for the elimination of arsenic as from twelve days to a month, and many consider that the opinion can be given that, if arsenic is detected in the organs, it must have been ingested within a month before death. The above case, however, shows that it may require about fifty days for its complete elimination. Whether the elimination after chronic poisoning is slower than after acute remains to be decided.

In connection with this case the author cites experiments with tartar emetic, and shows that the action upon the digestive organs, upon nutrition, and upon the nervous system are the same for both arsenic and antimony. In several cases of phosphorus poisoning reported by Andante, M. Roucher finds similar symptoms produced as in chronic arsenic and antimony poisoning, and he is led to believe that the analogy which marks the chemical properties of these three closely allied elements will be found to exist in regard to their physiological action also.

On the Physiological Test for Poisons. — MM. Albertoni and Lussana[1] find that the extractive matters obtained from the various animal fluids and tissues produce death in animals when injected subcutaneously or into the veins. The symptoms produced by such injections are first an increase and then a diminution in the frequency of the pulse, soon a lowering of the temperature, slow respiration, diarrhœa, and certain convulsive and paralytic phenomena, most frequently paraplegia. Ordinary extract of meat, like Liebig's extract, has precisely the same effect; also the substances extracted in the ordinary way from the organs of two sisters who died under suspicious circumstances proved fatal to animals when injected subcutaneously, the symptoms which were produced being the same as those caused by the extract of meat. They conclude, therefore, that it is impossible to affirm that certain organs contain a substance foreign to the organism and capable of producing death, because the extract from those organs has been found to cause the death of an animal when injected subcutaneously.

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[1] Annales d'Hygiène, July, 1874.

MAREY ON ANIMAL MECHANISM.[1]

Of late years several works have appeared treating of a greater or less part of this subject of Animal Mechanism. Though referring only to the human skeleton, the work of Meyer stands far in advance of all others. The views are correct, and, though hard reading, the book is intelligible. Haughton's Animal Mechanics is for the most part incomprehensible to those of us who are not advanced mathematicians, but the looseness of the work in the parts we can understand enables us to bear our exclusion from the rest with philosophy. In Pettigrew's Animal Locomotion[2] similar defects are to be observed, with the difference that as the author conceals his ideas in mazes of words instead of labyrinths of figures, it is more easily criticised. With these works in our mind, we have looked forward with much interest to the work now before us. In certain respects we are much disappointed; in others as much pleased. The work is divided into three books: the first treats of Forces and Organs, the second of Functions: Terrestrial Locomotion, and the third of Aerial Locomotion. As may be inferred from the title, the first book embraces a pretty extensive field. We think it a mistake to devote so much space to the correlation of forces and such general principles, for the space does not admit of their receiving justice, and a superficial discussion is unprofitable. The whole of the first book is open to a similar criticism, as it treats of a great number of topics not essential to the plan of the work. Animal heat and electricity might, we think, be dispensed with. The discussion of the evolution theory is interesting and able. The author shows very well how the shape of the bones depends upon the arrangement of the muscles, vessels, etc., though we have doubts if the rule be absolutely true that "there is not a single depression or projection in the skeleton the cause of which cannot be found in an external force, which has acted on the bony matter either to indent it or to draw it forward." There is a good deal about the muscular system that is inaccurate, and a little that we think is quite wrong. The author follows Borelli with a blind confidence that accounts for some of these defects. He quotes this author's comparison of a primitive muscular fibre with a chain composed of minute circular elastic rings, and speaks of the laws governing the manner in which it will recover itself after being stretched, apparently thinking this a parallel case to contraction from a state of repose. The author gives it as a law that "the work done by a muscle will be in proportion to its length and its tranverse section; that is to say, to its volume or to its weight." To make this true, it is of course, necessary to assume that the "substance of the muscles, that is to say, of red flesh, presents the same density in the different parts of the animal frame;" but he states this not as an assumption but as an acknowledged fact. We are unable to say this is not true, but we should like to have some proof of its truth before accepting it. Considering the great difference of coarseness of fibre in different parts of the body, and the different kinds of work required by different muscles, we should think it very improbable that an ounce of muscle represented always the same potential force. Some muscles, like those of the orbit, are incessantly employed during the waking hours in moving a light unresisting body hither and thither; some, like the muscles of the back, must be kept for a great part of the time in partial contraction; and again others have usually but little to do, and are occasionally called upon for a violent effort. It is hard to believe that the power of all these is the same. Ranvier a year ago showed that there were marked differences both in structure and manner of contracting between the red and the white muscles of the rabbit, and it is not impossible that analogous distinctions can be drawn between different muscles of animals in which all are red. It is surely a serious error to speak of the *rectus abdominis* as a long muscle. By way of putting all our fault-finding together, we must say here that the translator appears to be quite ignorant of anatomy, for he makes utter nonsense of two passages (pp. 75 and 88) by translating the French for *fibula* (*péroné*) into "perinæum."

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[1] *Animal Mechanism: A Treatise on Terrestrial and Aerial Locomotion.* By E. J. Marey, Professor at the College of France. (International Scientific Series.) New York: D. Appleton & Co. 1874. Pp. 283.

[2] See this Journal, May 14, 1874.

Leaving general principles, the author turns to the discussion of the phenomena of locomotion on land, as shown by man and the horse; and through air, as shown by insects and birds. We shall limit our discussion to the movements of man. We regret that the mechanism by which movements are effected is not more considered, the author giving us merely the results but not all the steps by which the results are obtained. Thus, while showing the length of contact of each foot with the ground in walking, the rise and oscillation of the pubes, etc., he says little of the muscular action by which this is accomplished. He ignores entirely the bending of the knee. But in spite of these defects, it is impossible to praise too highly the ingenuity displayed in contriving apparatus to record the results, and the accuracy with which it is accomplished. The following is a short summary of the movements in walking. One foot is always on the ground, the one which has completed a step reaching the ground just before the other leaves it. The raising of the latter of course causes the former to bear all the weight, and to make the pressure necessary to start the body. The pressure is not equal throughout, but increases gradually during the greater part of the step and rapidly toward its end, at which moment the forward movement of the body is most rapid. The pubes (and consequently the head) is highest at the middle of the step; for then the supporting leg is nearly straight. At the same moment the pelvis is thrown towards the side of the supporting leg, so that the foot may be nearly under the median line of the body. The variations in the step in running, going up and down stairs, and in the galloping of children are freely discussed. Most ingenious modifications of this apparatus are made for the horse; and that for birds is especially complicated.

If the scientific part were equal to the mechanical, the work would be perfect. T. D., Jr.

PROCEEDINGS OF THE ROXBURY SOCIETY FOR MEDICAL IMPROVEMENT.

[REPORTED FOR THE JOURNAL.]

A SPECIAL meeting of the society was held on the evening of November 24, 1874, at the house of DR. F. W. GOSS.

DR. R. T. EDES occupied the chair.

Veratrum Viride. — DR. P. O'M. EDSON presented the regular paper for the evening, on the uses of veratrum viride, illustrating the same by reports of cases.

The first case was one of croup, in which the symptoms were severe, with high fever and all the indications of a grave case, and one in which exudation was to be expected; but the symptoms abated soon after the exhibition of the veratrum viride. No membrane was thrown off, and there was no muco-purulent expectoration. It was believed that the case ended by resolution before exudation had time to take place, a result due, probably, to the prompt action of the drug. In this case he gave a two-ounce mixture containing half a drachm of Norwood's tincture; and of this he ordered a teaspoonful every two hours. The age of the patient was four and a half years.

The second case was that of a stout, plethoric young man, with clonic spasms; his face was injected, his eyes were bright, and his carotids throbbing. He had been similarly affected before, and on former occasions the convulsions had continued for some time after the use of emetics and other treatment. As a result of these former seizures he had been left weak and depressed for several days afterwards. But on this occasion Dr. Edson gave him at once half a drachm of the tincture with the effect of reducing the pulse in one hour from one hundred to seventy. In two hours he was perfectly rational and went to sleep; and in two days he was well.

The third case was one of acute mania from the excessive use of alcoholic stimulants. There was furious delirium. Fifteen drops of the tincture of veratrum were given, to be repeated in an hour; but the patient slept and there was no further trouble.

Dr. Edson then spoke of the good effect of the veratrum viride in meningitis of children; it is safer than other depressants, as its effect can easily be checked by the exhibition of opium and stimulants, thus differing from aconite and antimony. It is a sedative, reducing the action of the heart and causing general relaxation, and its best results are obtained from small doses often repeated.

In answer to questions Dr. Edson said that he had never given the drug to a child under two and a half years old. In one case he gave on one occasion two drops every two hours, for twelve hours, with no bad effect. One drop would be a dose for a child one year old. The effect should be carefully watched, the patient being visited often while the drug is being administered. Veratrum is indicated in cases of rapid pulse due to too great power of the heart, but not in the rapid pulse of debility.

Croup. — DR. EDES asked if any member had ever seen a non-membranous case of croup prove fatal.

Dr. Goss said he had read of such cases, but had not met with any in his own practice.

Dr. Arnold thought he had seen the membrane develop in a case of ordinary laryngitis.

Dr. Eddes further remarked that some distinguished physicians, whom he named, asserted that they never lose cases by membranous croup, when these are seen by them in season, and that others considered the subsulphate of mercury a specific in this disease. He could hardly believe these statements, and he would like to hear the experience of members and their conclusions from cases in their own practice.

Dr. Cotting, on being appealed to, said he thought that some error existed in the assertions of those who claimed that they had never lost a case by membranous croup, and that such statements should be taken with allowance, though coming from those incapable of intentional deception. An honest and trustworthy gentleman of experience, formerly president of the Norfolk District Medical Society, continues in the belief that he has saved all his patients afflicted with this disease by large and repeated doses of the subsulphate of mercury. Dr. Cotting could only say that such had not been his own experience with that drug, or with any other. This disease is not often within the reach of any drug or treatment, and he is a fortunate practitioner who has never been called to inevitably fatal cases. A favorable termination in a proportion of more than one case in three, of real membranous croup, would, in his opinion, be a better result than has been obtained hitherto. Of course those cases only should be counted where the membrane is obtained and carefully examined. The remarkable success alluded to can apparently be explained only on the supposition that the practitioners have never fallen in with the real disease attended with the membrane.

Membranous croup is the result of a distinct influence, and is as much a disease, *sui generis*, as any other that can be named. The membrane is essential, — laryngitis is not croup, — and the exudation may be only a very thin film, or it may have the thickness and toughness of moistened parchment. It is of a peculiar structure, and a different thing from the exudations or the sloughs accompanying so-called diphtheria. The process of separation is as natural as that of a scab from a sore, and if hastened by violence (as is possible perhaps by harsh emetics) a re-formation may occur with increased suffering and risk. When cast off spontaneously, the membrane may escape observation, but sometimes its ejection even then is accompanied with violent and distressing struggles. The extent of the membrane is very various. Sometimes in nursing infants it covers only the throat, and does not descend into the larynx; and in older children it may appear only on the tonsils. Such cases are ordinarily of little moment. When the exudation is in the larynx, the case is the most distressing of all; if it begin below the larynx, it may be very extensive, reaching far down into the branches of the bronchi, without greatly alarming the bystanders, even up to a fatal termination from the loosened membrane falling in upon itself and causing suffocation. Unless, as is not common, the constitutional disturbance be severe, the approach of the disease is so stealthy that it usually exists several days before its dangerous nature is suspected. In this it is the very reverse of that suddenly developed, noisy attack misnamed croup, which is only an unimportant attendant upon catarrhal colds; creating great alarm, indeed, but soon passing off if let alone, and being in itself never fatal.

That the membrane is not the disease, nor the cause of death in all cases, is shown by the fact that death occurs after all the membrane has been cast off or before it has become an obstacle to free admission of air. Death has occurred as early as the third day, when there was only a thin film of membrane commencing below the larynx and extending less than an inch — so thin and so adherent that, *post mortem*, it could not be dissected off. In such a case, death takes place from the disease, or its constitutional disturbances, and not from the membrane. In many cases, however, death is caused by imperfect aeration of the blood in the lungs and by the exhaustion from excessive exertions in breathing, continued unremittingly through several days and nights.

Dr. Cotting stated that he had repeatedly seen two or more cases at or about the same time in the same family; in two instances there were two cases in the same family, both of which were fatal. In another family, there were four cases at the same time, three of which recovered. For a number of years the disease seemed very prevalent in this vicinity, seventy-one deaths having occurred by it in the eight years previous to 1860, in a population of twenty thousand, or one death in every forty from all causes; while for the last ten years cases have been almost unknown to members of this society, though the population has more than doubled.

Dr. Cotting believed membranous croup to be a self-limited disease, having a beginning, middle, and ending as distinct and uniform in progress, and as uncontrolled by any means now known, as measles or small-pox. He advocated a mild treatment, nutritious and soothing, with watery vapor (if agreeable) diffused in the apartment or inhaled by the patient.

Accidental Re-vaccination. — DR. COTTING showed, on his own person, what he called "a morbid specimen;" and made the following remarks, mostly in answer to questions of members.

While taking vaccine virus from an infant's arm, from a full vesicle of the eighth day, he accidentally touched the back of the second finger of the right hand with the lancet, then having a drop of virus on its point. The wound was too small to be seen even with a magnifier, but it smarted out of proportion to its size. Its location was near the joint at the distal end of the second phalanx. Comprehending its nature and anticipating results always feared by him more than the risk of varioloid, he washed the wound at once as thoroughly as possible, and made every effort to render it innocuous. The smarting continued at intervals through most of the following two days. On the third day there was a feeling of induration around the spot, which took, in the course of the fourth and fifth days, a pimply form. Then followed a somewhat flattened pustular, or rather a semi-vesicular, appearance, on the sixth and following days. On the sixth day there was quite an inflammation (or areola), which on the seventh day extended to the tip of the finger, and upwards to and beyond the second joint. This inflamed part was quite hot, painful, and had a decidedly erysipelatous look. During the seventh, eighth, and ninth days these appearances continued in a more or less aggravated form, with pain and soreness up and through the arm, and upon the right side of the chest a little below the axilla. There was also considerable constitutional disturbance, manifested in loss ot appetite, pains in the bones, and general discomfort. On the ninth day there was a partial subsidence of the symptoms, locally as well as generally, and the wounded part now had a dusky, semi-purulent, and flattened appearance. On the tenth, eleventh, and twelfth days the areola and swelling gradually abated, and a circular scab, a quarter of an inch in diameter, began to form. On the thirteenth day the scab was well defined and prominent. The surrounding skin became pale red, not much swollen, and nearly natural, the epidermis peeling. There was then no severe pain in the arm, except when put upon the stretch or bent, as in an attempt to button a garment. Stiffness and soreness were prominent, and were aggravated by such efforts.

Subsequently, all unpleasant symptoms, except those in the arm, gradually disappeared. The scab fell off on the twenty-ninth day, leaving a depressed, foveated scar of about a quarter of an inch in diameter.

Such is the history, he said, of a second vaccination occurring from the accidental inoculation of virus directly from an infant's arm. Although an interval of more than half a century had elapsed since the first vaccination, the progress of the disease and the local appearances in this case were exactly those witnessed in a large majority of cases of second vaccination where the interval had been only a few months or a few weeks. In his own practice and in that of others, through a period of more than thirty years, he had not in nine cases out of ten seen better results than in this instance. Though his case, shown to three separate societies, was not at first sight recognized as vaccine inoculation by scores of practitioners who had seen it in its earlier stages (with minds misdirected, by reason probably of its unusual locality and the absence of any other hint as to its nature), its perfect similarity to multitudes of cases pronounced "taken" and "protective" during a late epidemic of small-pox was unmistakable to those in the secret as to its origin, and who witnessed its progress from day to day. Had the sore been on the place usually selected for vaccination, it probably would have been recognized at once by all, as it in fact was as soon as its history was suggested.

He had, he said, seen many worse sores from re-vaccination, though this was sufficiently troublesome. That it was pronounced "spurious," or "not a vaccine process," by experts shows, as far as such opinion goes, that a first vaccination does not always run out through lapse of years; and that a second vaccination with the freshest and purest virus may generate a disturbance which in outward appearance has "no specific vaccine process about it." It was this tendency to anomalous disturbance that had hitherto deterred him from submitting to re-vaccination; preferring the risk of variola (to which a frequent and prolonged attendance on the disease had often greatly exposed him) to the chances of the dangerous inflammations and septic affections frequently developed by re-vaccination.

The exceptional possibility of really taking vaccine disease a second time (as any other disease is sometimes so taken) is the only justifiable reason for re-vaccinating any one. This liability is less than is generally admitted. In the thousands of re-vaccinations witnessed in others' practice and in his own, he had never seen in such re-vaccinations more than half a dozen vesicles, if as many, which, the history untold, would be mistaken by experts for true vesicles of a first vaccination. [In this he finds that he is not wholly alone. Dr. Snow, City Physician of the City of Providence, and a practitioner of unquestioned ability and great experience, says[1] that "in all his experience he has never seen a perfect vaccination produced a second time, in the same person."] If others could report a greater proportion of true vesicles in secondary or other re-vaccinations than he had reported, they had had, said Dr. Cotting, a very different experience from his own.

The protective value of these repeated vaccinations, especially after the second, is still a problem apparently not likely to be solved by the present generation. For himself, one vaccination had proved a complete protection in all degrees of exposure up to the time of his present unfortunate accident; and he had known variola to occur within three months after a re-vaccination which had been as severe and as damaging as that he was still suffering from. If his case, severe as it was, had nothing specific or protective about it, as some asserted, then most of the cases of re-vaccination he had ever seen were not specific; and, affording no increased protection, they were therefore worse than useless.

The crust formed in the present case was as typical in its gross appearances as the average crust from second vaccination. That it possessed specific qualities was shown by the fact that when used for the primary vaccination of an infant, it produced a vesicle at the eighth day as perfect as that from fresh virus used at the same time. But if this result had not followed, and if vaccination with this crust had produced only negative effects, the case would not have differed from the frequent experience of physicians in the use of reputable vaccine crusts. Whether the scab, in the instance under discussion, contained specific matter or not is of little consequence.

As a result of his first vaccination he never had any scar which would be recognized as of vaccine disease, and yet he had been a thousand times more exposed than many who with large and "characteristic" scars have taken varioloid, and that, too, after repeated re-vaccination. This difference in individuals depends on the different degrees of original susceptibility. Cases of second small-pox have occurred most frequently in those who have had it severely in the first instance, and who were greatly marked by it in the first attack. In Dr. Cotting's opinion, his own case therefore demonstrated how unimportant a scar is as an indication of the amount of protection.

Furthermore his case showed by how slight a wound the virus may enter and be absorbed, how quick the absorption may be, and how difficult the extraction of the poison even from the onset.

On being further asked what was his practice, and what he would advise with regard to re-vaccinating, Dr. Cotting said that as it is impossible to predict who in the thousand may be the one liable to a second attack of small-pox, or who may take vaccination a second time, he had been in the habit, during all his professional life, of suggesting a second vaccination, *as a test*, to be tried soon after all the stages of the first had been passed, — within six months, let us say. He always considered his patients entitled to so much at his hands, and without additional fee; and many had availed themselves of the privilege. More than this he had not advised, although he had never refused to re-vaccinate any one who requested it, he declining, however, all responsibility for exceptional or bad results. He had preferred in his own case to trust to one vaccination, for the reasons stated. His first vaccination had protected him from variola through so many years, but not from the present miserable "spurious" disorder, which may happen to any one after any number of re-vaccinations, or after variola itself. The injury thus incurred by re-vaccination is beyond computation; and it frequently impairs health for years, or for a life-time. Moreover, there is no certainty that such disorder may not prove fatal; it has done so in more than one instance, and may again in any case. From his present personal experience, Dr. Cotting believed more than ever, with Dr. Seaton, that "re-vaccination was a thing not to be played with."

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[1] Boston Medical and Surgical Journal, 1871, p. 342.

In Dr. Cotting's opinion, neither vaccination nor small-pox itself would prevent in every instance an attack of second variola or of so-called varioloid; nor was there, from present indications, any probability that small-pox would be removed from off the earth, "stamped out," through this or any other human agency; certainly not by vaccination alone. Vaccination, though an "enormous boon," gained nothing by misrepresentation.

At this late day in the history of the Jennerian operation, the advocacy of repeated re-vaccinations, as practiced by many physicians, especially during epidemics, betrays, if nothing more, the lack of a just estimate of vaccination and a want of confidence in its protective powers not very creditable to the profession.

THE SURGEON-GENERAL'S ANNUAL REPORT.

The annual report of the Surgeon-General of the United States Army for the year ending June 30, 1874, contains, in addition to the usual financial statement and general statistics of the health of the army, some matters worthy of special notice at our hands. The limited prevalence of yellow fever among the troops during the epidemic of the summer of 1873 seems to have been due chiefly to the hygienic precautions adopted, and especially to the prompt removal of the troops from those posts at which the disease was actually introduced, or at which its introduction appeared imminent. The work performed in the record and pension divisions, instead of diminishing, as one would suppose, has actually increased during the past year. With the lapse of time since the close of the war, the labor of investigating applications for pension has become unusually difficult, partly on account of the increased number of cases in which it is necessary to trace the soldier through several hospitals, and partly on account of the inaccuracy of the data furnished.

The publication of the descriptive anatomical catalogue was recommended in 1873 by the Surgeon-General in a letter which sets forth the value of this department of the museum, and particularly that portion devoted to craniology. The collection of skulls, derived from all parts of the country, is the largest of its kind ever made available for study. Its value is greatly enhanced by the series of cranial measurements, the specimens for which were derived from Indian tribes, and the white and black races. To utilize this collection, a catalogue is indispensable. The publication of this catalogue was also recommended by the Secretary of War and by the House of Representatives, but was not acted upon by the Senate. A delay of two years has thus ensued, and the request is now renewed. It is difficult to understand why there should be any hesitation in granting a sum sufficient for this purpose, in view of the success attending the publication of catalogues of other sections, whereby the value as well as the fame of the museum has been greatly increased.

The second part of the medical and surgical history of the war is now in process of printing, and permission is asked to print an additional edition of the whole work. The value of all that has been done in this department is such, that it is to be hoped that Congress will not withhold the funds necessary to complete satisfactorily what has been so well begun, and has redounded so much to our national credit.

The act reorganizing the staff corps of the army is thus alluded to: "While allowing appointments of assistant surgeons in the army, [it] cuts off two of the five lieutenant-colonels and ten of the sixty majors, thus preventing any promotion for many years to come. This is much to be regretted, as it places the officers of the medical corps below those of all the other staff corps and of the line of the army as regards promotion, which is felt by them as a hardship and injustice, the results of which cannot fail to be most injurious to the best interests of the service." The clause limiting the number of contract surgeons will also act very unfavorably, and "must result either in actual suffering for want of medical attendance, or in largely increased expense to the government." It is hardly necessary for us to comment here upon this legislation. The matter was so thoroughly discussed last year, and the rights of the medical staff were so urgently pressed upon Congress at the time the passage of the bill was pending, that there seems to be little hope for some time to come of anything like justice being done to this much-abused department of the army. Nevertheless, it is evidently the duty of the medical profession not to allow the matter to rest here, but persistently to urge the cause of their brethren in the army, until the rights of the medical staff shall have been properly recognized.

THE LESIONS OF THE CEREBELLUM.

IN a clinical lecture on the Diagnosis of Lesions of the Cerebellum, reported in the *Lancet* of November 28, Dr. H. Charlton Bastian states that with respect to the functions of the cerebellum we must consider this organ to have no independent function in the province either of mind or of motility, but to be more intimately concerned with the production of bodily movements than with the evolution of mental phenomena. The fact that an intimate functional relationship exists between the cerebrum and the cerebellum is shown by the circumstance that atrophy of one cerebral hemisphere entails a corresponding atrophy of the opposite half of the cerebellum, though the subordinate and supplementary nature of the cerebellar function is indicated by the fact that atrophy of one side of the cerebellum, when it occurs as the primary event, does not entail any appreciable wasting in the opposite half of the cerebrum.

Dr. Bastian regards the cerebellum as in part a well-spring of motor force, and as in part an organ for the discharge of certain of the functions hitherto supposed to depend upon the so-called "muscular sense," though in respect to these latter attributes he maintains the doctrine that the different impressions upon which they depend lie outside the sphere of consciousness.

Lesions of the lateral lobe of the cerebellum may occur with or without loss of consciousness, according as they are sudden and extensive, or the reverse. Severe occipital or frontal pain, mostly of a paroxysmal character, is often complained of, and vomiting occurs perhaps rather more frequently than with injuries in other parts of the brain. Paralysis of the opposite arm and leg is very often met with, though it is not accompanied with much diminution ot sensibility. The paralysis is apt to be more marked in the leg than in the arm, and is generally absent from the face; in these respects differing from the common forms of hemiplegia. It differs also from the kind of paralysis produced by superficial lesions of the cerebral hemispheres, where, though paralysis of the face may be absent, that of the arm is more marked than that of the leg. Speech and deglutition are not usually affected. Blindness may supervene, especially where the superior peduncles are affected, these parts being in close topographical if not functional relation with the corpora quadrigemina or visual centres.

When the lesion exists in the median lobe of the cerebellum, there is great latitude with regard to the symptoms produced. Hemiplegic symptoms are less frequent than when we have to do with lesions of the lateral lobes. In almost all cases of disease of the cerebellum in which excitation of the genital functions has been noticed, the lesion has been situated in the median lobe. Such symptoms have been noted in about one third of the recorded cases of disease of this lobe. They do not present themselves where only the lateral lobes are affected. With the limitation thus indicated there appears to be some foundation for the old phrenological doctrine as to the function of the cerebellum.

THE AGE AT WHICH CHILD-BEARING CEASES.

A PAPER was recently read by Dr. Fordyce Barker before the New York Medical Library and Journal Association, upon "The Age of Women when the Capacity for Child-bearing Ceases." The object of the writer, as reported by the *Medical Record*, was to show that physiologically, and as a matter of experience, there are limits to the reproductive function of women. Ovulation and menstruation, though often coincident, do not necessarily bear to each other the relation of cause and effect, nor does ovulation always occur at the time of menstruation. Menstruation is, therefore, to be regarded as an accidental and incidental phenomenon, and is a flow of blood from the interior of the uterus at stated periods, irrespective of ovulation. Ovulation, but not menstruation, is essential to conception. The occurrence of menstruation in a woman advanced in years is no evidence of the occurrence of ovulation at the same time. When senile atrophy of the ovaries takes place, ovulation ceases and conception is no longer possible. Usually this period is reached between the fortieth and fiftieth year of the woman's age. In very exceptional cases this change does not take place until from one to four years later. Dr. Barker claims that these are well-established facts, proved by multitudes of post-mortem examinations; and, moreover, that not a single well-authenticated case has been known of a woman over fifty-five years of age who has given birth to a child, except that of Sarah, the wife of Abraham. Many such have been reported, but none are supported by conclusive evidence; hence the conclusion that the laws of physiology, the experience of mankind, and the decisions of the courts will justify the medical witness in declaring, when questioned in court as to the age during which child-bearing is possible, that a woman over fifty-five years of age is past the period of child-bearing.

In further proof of the fact that though menstruation and ovulation are generally coincident, they do not bear the relation of cause and effect, Dr. Barker stated that the one may exist without the other, as proved by many well-established cases; that cicatrices have been found in ovaries, indicating rupture of Graafian vesicles, many years previous to the appearance of menstruation, and that fresh cicatrices have also been found in old women a long time after the cessation of menstruation; that we have now eight well-authenticated cases in which women have menstruated and continued to do so after both ovaries were removed, rendering ovulation impossible.

In the discussion which followed the reading of the paper, Dr. Caro remarked that during his residence in Sicily the government recognized the possibility of child-bearing commencing at the age of eleven years and two months, and continuing to the age of fifty-four or fifty-five years. He reported that while living there he had personal knowledge of a woman who had given birth to thirty-one children; and that twenty-two of them had sat at the same table. This woman gave birth to her last child when she was fifty-four years old. It was supposed she had a double uterus, from the fact that a child was born every *six months.* Unfortunately when the woman died no post-mortem examination was obtained.

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THE PARASITES OF THE FEMALE BREAST.

In a recent work Dr. Haussmann, of Berlin, has given a satisfactory account of all that is at present known on this subject. The echinococcus cyst is the only animal parasite found in the female breast; the reports which from time to time come of the presence of lumbrici and other worms in this organ the author states to be founded on error.

From an analysis of twelve well-authenticated cases of echinococci in the mammæ, it was found that in seven cases the right breast was affected, and in five the left. All parts of the gland may be involved except the nipple and its immediate neighborhood. The cysts probably enter the breast from the portal system, through its anastomosis with superficial abdominal veins, by the small veins which anastomose with the portal system. They lie in a rounded cavity formed by the displacement of the lobules of the gland and of the connective tissue between them, with a wall of about one centimetre in thickness. Irritation by friction or otherwise may cause the formation of a sero-purulent or a purulent fluid between the cavity containing the cyst and the cyst itself. In general character the echinococcus resembles that found in other parts of the body. The cyst may be single, or it may consist of a mother cyst and several daughter cysts. The smallest of the mother cysts was as large as an apple; the largest reached the size of a man's fist.

The early symptoms of an echinococcus of the breast are trifling, and the cyst may reach the size of a hen's egg before it causes inconvenience to the patient. Then a feeling of weight and tension in the breast, difficulty of moving the arm, and tenderness on pressure may be complained of. Fluctuation is usually present. The growth of the cyst is very slow; it may remain unaltered in size for years, and then suddenly enlarge, sometimes without assignable cause, sometimes following lactation or mechanical injury. Inflammation may be set up by exploratory incisions or other sources of irritation, and an abscess may form which afterwards discharges a scanty pus, and eventually the cyst may be thrown off, either entire or bit by bit. As a rule, the general health is unimpaired from the presence of the parasite, with the exception of the slight constitutional disturbance arising during the suppurative process.

The differential diagnosis from other tumors of the breast is usually quite easy. Simple cysts are the most difficult to distinguish from echinococci. The prognosis is usually favorable. The treatment is the removal of the cyst by means of a large incision.

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MEDICAL NOTES.

— At a recent meeting of the Académie de Médecine, M. Delalain presented a patient wearing an appliance of his invention which he designated by the name of a "facial obturator." The obturator was designed to conceal an enormous loss of substance from the face. The subject, an artilleryman, had had the greater part of his face carried away in 1870, by the explosion of a shell. The appliance was essentially a mask representing on the exterior the central part of the face carried away by the projectile, — the eyes, nose, cheeks, — and was fitted accurately to the parts bordering on the wound. On the interior the mask presented two ventilators designed to give more delicacy to the sense of smell, a sponge intended to absorb the too great humidity of the air in damp weather, a gauze for the purpose of arresting the dust inhaled from the external air, and a trough attached to the tip of the artificial nose, perforated at its extremity with very many small holes, permitting the moisture from the expired air to be conducted away without reaching the sound skin upon which the lateral borders of the apparatus rested. By means of the contrivance the functions of smell, respiration, voice, and mastication, which had been destroyed or greatly impaired, were completely restored.

— A case has of late been on trial in England in which the defendant, a physician, is entitled to the heartfelt sympathy of the profession, in that besides having himself contracted a terrible disease, and being obliged to pay damages to the amount of £500, he was the innocent cause of injury to a patient who brought a suit against him. The *Lancet* states that in March, 1872, Dr. Davey was called to attend a woman in labor, whom he found to be suffering from syphilis. In delivering her of a still-born child, he unfortunately inoculated his right forefinger, on which there was a slight unhealed wound. Unaware of this fact, Dr. Davey continued in the practice of his profession, and in the following May delivered a Mrs. Simpson, a regular patient of his, of a large, healthy child. The perinæum was slightly torn, and Mrs. Simpson did not make a good recovery, but continued to complain of soreness and discharge, and eventually developed a well-marked secondary eruption. By this time, Dr. Davey was also suffering from secondary symptoms, and he explained to Mr. and Mrs. Simpson his own distressing condition and the mischief he had involuntarily done her. During his necessary absence for the recovery of his health, Mrs. Simpson was treated by another physician; but she afterwards returned to Dr. Davey's care, and he delivered her in October, 1873, of a child which was undoubtedly syphilitic. An agreement was drawn up between the parties that in consideration of Dr. Davey giving his services to Mrs. Simpson without charge, until she was certified by some independent authority to be well, no legal proceedings should be instituted; but some time after, the Simpsons became dissatisfied and commenced an action.

The medical testimony given on both sides, which included that of Mr. Christopher Heath for the plaintiff, and of Mr. Jonathan Hutchinson for the defense, was most decided as to the difficulty of the recognition of a chancre on the finger. In fact, Mr. Hutchinson had been consulted by Dr. Davey before any eruption appeared on his body, and the consultant was doubtful as to the nature of the sore on the finger.

The concluding remarks of Lord Chief Justice Cockburn, who presided during the trial, are mentioned with commendation. In them he expressed the hope that Dr. Davey's professional prospects would not be injured by a trial which had proved him to be blameless.

— About 1730, says the *British Medical Journal*, it was customary to appoint a stone-cutter to the London hospitals, who should also cut for hernia, but should not hold the appointment of surgeon to the hospital, or, in fact, be denominated surgeon, but simply "stone-cutter and rupture-curer." "That brute Ranby," as Queen Anne called him, operated on her Majesty.

— The second annual meeting of the Association of the Alumni of the Albany Medical College was held in the city of Albany, on Tuesday, December 22, 1874. The following officers were elected for the ensuing year: *Presi-*

dent, Dr. John H. Beech (1841), Michigan; *Vice-Presidents*, Drs. Alson D. Hull (1841), New York, B. A. Mynderse (1853), New York, Alexander Shiland (1853), New York, Solomon Van Etten (1853), New York, and Charles L. Spenser (1857), Massachusetts; *Secretary*, Dr. Willis G. Tucker (1870), New York; *Treasurer*, Dr. G. L. Ullman (1871), New York; *Executive Committee*, Drs. H. D. Didama (1846), William S. Young (1841), James H. Scoon (1849), James S. Bailey (1853), M. H. Burton (1853), John H. Hill (1853), Charles H. Burbeck (1859), A. P. Ten Eyck (1866), J. H. Blatner (1872), Oscar Myers (1873).

The address of the retiring president, Professor Didama, of the Syracuse University, was listened to with much interest. In the evening the association partook of its annual supper at the Delavan House, about one hundred and forty graduates being present.

— It is stated that no less than 100,000 leeches are required annually by the French military hospitals.

— A meeting has lately been held to raise £100,000 for the purpose of enlarging the various lecture rooms, and otherwise increasing the accommodations for students, at the University of Edinburgh. Already £70,000 have been subscribed.

LETTER FROM ANN ARBOR.

Messrs. Editors, — A letter from this city which was not largely devoted to matters pertaining to the State university would be a greater novelty than an epistle from Washington during session without mention of Congress. Take away the university from the town, and you would have remaining a place of some six or seven thousand inhabitants, the majority of whom would feel that Ann Arbor's occupation was indeed gone. Almost everybody depends directly or indirectly on the college people for support. Nearly every roof shelters them, and about as many tables are spread with reference to their appetites; for, as there are no college dormitories and no commons, the twelve hundred students are lodged and fed all over the town, which one may with some truth consider as essentially a large collection of boarding-houses. Certainly there is nothing here besides the university to excite a comment or attract attention, excepting always the unique name, which is a perpetual provocative of puzzled inquiry.

In many respects the founders of the university showed their wisdom in locating their institution here. The natural surroundings are exceptionally fine for a place in this region of the country, the ground being more hilly than through the State generally; and the scenery is consequently calculated to make a New Englander feel more at home than he can in the midst of the unbroken levels which so abound hereabouts. But better than the surroundings which please the eye is the undoubted healthfulness of this vicinity. One who expects to find a good deal of malarial disease will be somewhat astonished to ascertain, in answer to his anxious inquiries, that a great many persons have lived here constantly for a score of years without a touch of ague. The people generally rather resent any imputation of the kind, and assert with some asperity that there is no foundation for such a thought. They will add that years ago, when the country was first opened, there was malaria here, and that there is a great deal even now in some towns nine or ten miles away, but no cases originate here. Still, very many diseases incline toward a malarial type, and occasionally there will appear a genuine case of intermittent, though, as a rule, of a manageable character.

There are three departments in the university: the first, that of Literature, Science, and the Arts; the second, that of Medicine and Surgery; and the third, that of Law. The Pharmacy School, which is reckoned a special course in the college proper, has assumed such proportions within a few years as to deserve to be called a department by itself. In it can be found admirable opportunities for acquiring a knowledge of practical chemistry, botany, crystallography, and other branches which thinking people are beginning to consider essentials for dispensing apothecaries; and these advantages are appreciated to such an extent by the rising generation of pharmaceutists, that the capacity of the laboratory, though largely increased this very year, is yet insufficient for the demands made upon it.

About one half the students in the university are residents of Michigan; but almost every other State in the Union has representatives here, and there are numbers from other countries, as Canada, the Sandwich Islands, Africa, Japan, Russia, and Denmark.

In the medical department, in which your readers are naturally most interested, there is a class which numbers over three hundred and sixty, — an advance of fifty on that of last year, — and of these about half a hundred are women. The increase is particularly gratifying as it has occurred in spite of the unfavorable predictions of various individuals who had been closely observing the progress of events. They based their prognostications on the facts that other schools in the West had been making great exertions to augment the number of their students, that the charges in this college were somewhat raised last summer, that the question of introducing homœopathy into the institution was unsettled, and that an entrance examination was to be required. But these gloomy prophets were destined to be most agreeably disappointed in their expectations of a smaller class than usual. It cannot be doubted that men who would otherwise have come here have been induced to go elsewhere, and that neighboring schools have grown somewhat at the expense of this; but their increase from this source has been minute, and the loss here has been scarcely appreciable. The annual fees were formerly a mere bagatelle, and have been raised so slightly that the payments now demanded are amazingly small for the advantages presented, and can scarcely deter the most impecunious.

The homœopathic matter has given the friends of the medical department, and, indeed, of the entire university, great anxiety for a long time. Some years ago the legislature passed an enactment establishing two chairs of homœopathy in the university. But it was one thing to make the law, quite another to enforce it. The board of regents saw at once that the introduction of such an element of discord would not only be the perfect ruin of the medical school, but that it would also bring disaster to all the other departments. If the legislature was to be allowed to usurp the powers of the regents, there would be a speedy end to the success of an institution which had hitherto led the van among State universities. So the board declined to comply with the provisions of the law. They expressed a willingness to establish a medical school, entirely distinct from the one already in operation, and make it homœopathic throughout, whenever the State should supply the money requisite for that purpose. But the legislature was not disposed to make so great an outlay as that project necessitated, and the homœopathists have been endeavoring by various means to compel the regents to obey the law. The board being elected by popular vote, measures were taken which resulted in the choice of men with decided homœopathic sympathies. But nothing came of it; for, in nearly every instance, when the new regents perceived the real bearings of the case on the welfare of the great interests which were placed under their guardianship, they flatly refused to jeopardize the prosperity of the university, as they saw they must if they acceded to these absurd claims. Then the case was carried to the courts. One process after another was tried without success, and finally, this autumn, the case was argued before the full supreme bench, with the result of a refusal of the judges to grant the requested mandamus to compel the regents to appoint the homœopathic professors. So there the matter rests, greatly to the relief of the friends of the university and of sound medical teaching everywhere.

Now, as to the entrance examination. It is believed that this is the only medical school in the country where anything of the kind is required. Strange as it seems to one who considers the physician's need of a sound education, the greatest dullard may enter almost any medical school in the United States without a question as to his ability to understand what he will see and hear. Let me tell you of the examination of one of the candidates this year. He was nineteen years old, had been to school four years, and had studied medicine one year with his father, a physician in active practice. In answer to questions he said that Germany was in South America; Europe, Asia, and Africa were also there; Russia was in North America, about five hundred miles from New York city; England was in Russian North America; New Orleans was northeast from Indiana; water freezes at thirty-three degrees below zero, and boils at one hundred and two above; the torrid zone is hotter than the frigid on account of climate; summer is warmer than winter because of temperature; all animals are called quadrupeds; mosquito is spelled m-o-c-q-t-o; and if two apples cost three cents, twelve will cost thirty-six cents. He could not give the boundaries of his native State. Indeed, the only questions which he answered correctly were as to the capital of his State, and the location of the Amazon — with which, it is fair to remark, he associated the Nile and the Niger. Of course it is unnecessary to say that he was rejected; but it is pertinent to add that he departed in high dudgeon at the action of the faculty, evidently thinking that he had passed a very creditable examination, and declaring his intention to immediately favor a certain other school with his presence and patronage, which he is probably doing at this moment. In point of fact, it is positively known that the class in a neighboring school has been increased by reason of this feature at Ann Arbor, and it is likely that the same thing has occurred in a number of others. Justice requires the statement that the illustration just given is by far the most prominent display of ignorance yet made, and that such a degree of density is by no means requisite for rejection. But you would rightly judge that the examination is upon the merest rudiments of an English education. That it is almost ridiculously small must be admitted; but the fact should also be recognized that it has resulted in the refusal to admit a number of men who in some cases, to be sure, have gone to other institutions, in others, it is hoped, have been awakened to a sense of their deficiencies and have relinquished professional study, at least until they have gained a decent basis for it. The entering end of the wedge is always thin, but it is proposed to drive it in a little farther every year, just as long as the profession in this region will give countenance and support to the movement. That it is in the right direction, nobody who has given the least thought to the subject can doubt. Medical teachers, especially, knowing as they best can the extent to which the standard of medical education is lowered by the necessity of adapting the instruction to the capacity of a lot of students who are poorly prepared, or rather not prepared at all, will look upon these efforts with interest and wish them success.

One of the most interesting points about the university is the trial, on an extensive scale, of the experiment of co-education. Women are admitted to all the departments on a perfect equality with men, and both sexes attend all exercises together, except in the medical school. In this, the lectures are given separately to the male and female students, save only on chemistry, a subject which nobody thinks it improper or unadvisable on any account for men and women to study together. The results on every hand have thus far been eminently satisfactory. The women take high rank, and have given no evidence of impairment of bodily vigor in consequence of the rigorous course of study, nor of loss of the peculiarly feminine traits which so many have feared would be imperiled in acquiring an education with their brothers. These statements are particularly applicable to the women in the medical department. No one is at all surprised now to have them carry off a large share of the honors, and all the professors are agreed that, as a class, they stand higher in the quizzes than the men. This is attributable, to a great extent, to their superior preliminary education — a most striking circumstance in favor of the enforcement of entrance examinations. Many of them have had a large experience in teaching, a number are wives of physicians, and almost all are of an age which usually brings with it seriousness of purpose and strength of mind, if these qualities are ever to be possessed. The matriculation-book shows some interesting facts on this last point. The oldest man in the medical class is forty-six; the oldest woman, fifty. The youngest man is eighteen; the youngest woman, nineteen. The men average twenty-four and a half years; the women, thirty years. The average age of the entire class is twenty-five. Dividing them according to age into semi-decades, it is found that the majority of the men are between twenty and twenty-five; while the period of five years which includes the greatest number of women is that between thirty and thirty-five. Probably this difference in age will become less and less marked as the prejudice against the medical education of women diminishes, and their fitness for the practice of the healing art is more fully demonstrated. F. H. G.

ANN ARBOR, MICH., *December* 11, 1874.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending January 2, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire the most prevalent diseases were pneumonia, whooping-cough, and mild bronchitis. Rheumatism, typhoid fever, and croup were also reported, mild in type and limited in extent.

In the Connecticut Valley, bronchitis, diphtheria, influenza, pneumonia, and rheumatism are reported.

In the Midland section (Worcester County) bronchitis, diphtheria, influenza, pneumonia, rheumatism, and whooping-cough prevail. A few reports of croup, scarlatina and typhoid were received, but these diseases were not prevalent.

The Metropolitan district, embracing Boston and its suburbs, has bronchitis, measles of a mild type, scarlatina, rheumatism, pneumonia, and whooping-cough as its prevalent diseases. Measles is epidemic. Cases of croup, diphtheria, typhoid fever, tonsillitis, mumps, and chicken-pox are reported by a small minority.

In the Northeastern section (Middlesex and Essex counties) we have almost precisely the same prevalent diseases as those in the Metropolitan district.

Along the South Shore, and on the Cape, bronchitis, influenza, whooping-cough, scarlatina, and pneumonia prevail.

In the Island counties a gratifying absence of disease is noted, bronchitis of a mild type being the only prevalent ailment.

From the foregoing it appears that bronchitis is everywhere prevalent; diphtheria is in the western and middle parts of the State; influenza is in all parts; measles is epidemic in the Metropolitan and Northeastern sections; pneumonia and rheumatism are quite general; scarlatina prevails to a limited degree in the eastern part of the State; whooping-cough is quite general; and tonsillitis, mumps, and chicken-pox have a limited prevalence in the eastern counties.

F. W. DRAPER, M. D., Registrar.

The following is a bulletin of the diseases prevalent during the week ending January 9, 1875: —

In Berkshire: diphtheria, croup, and influenza, all of them of severe type.

In the Connecticut Valley: bronchitis, diphtheria, whooping-cough, pneumonia, rheumatism, and scarlatina.

In the Midland section (Worcester County): bronchitis (severe), pneumonia, whooping-cough, influenza, scarlatina, diphtheria, and croup.

In the Northeastern sections (Middlesex and Essex): mild bronchitis and influenza, measles, pneumonia, diphtheria, and whooping-cough.

In the Metropolitan district: measles (epidemic), rheumatism, pneumonia, bronchitis, scarlatina, and whooping-cough. A few reports of severe diphtheria were received; returns of "mild" diphtheria very probably belong with the reports of tonsillitis, which latter affection appears to be quite prevalent.

In the Southeastern sections: whooping-cough, pneumonia, bronchitis, scarlatina, measles, and typhoid.

Upon a general survey of the State, we find that bronchitis is most prevalent in the middle and eastern parts; diphtheria in the western; measles in Suffolk, Middlesex, and Essex counties; rheumatism, scarlatina, and whooping-cough universally in the sections east of the Connecticut.

Comparing the present with the last week, we find an increased prevalence of the following diseases reported: measles, croup, and tonsillitis. The following are less prevalent: bronchitis, pneumonia, influenza, rheumatism, whooping-cough, scarlatina, and typhoid. Diphtheria remains as at the last report.

F. W. DRAPER, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING JANUARY 2, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	584	29
Philadelphia	775,000	306	21
Brooklyn	450,000	229	26
Boston	375,000	159	22
Worcester	50,000	19	20
Lowell	50,000	23	24
Cambridge	44,000	21	25
Fall River	34,200	15	23
Lawrence	33,000	7	11
Springfield	33,000	11	17
Lynn	28,000	18	33
Salem	26,000	4	8

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THE POISONOUS ACTION OF TINCTURE OF ARNICA UPON THE SKIN.[1]

BY JAMES C. WHITE, M. D.

CASE I.— A gentleman, sixty-five years of age, in descending the stairs to mount his horse for a ride, slipped and scraped the lower part of his back. A handkerchief dipped in tincture of arnica was immediately applied to the bruised skin of the buttocks and worn in contact with the part during the ride, which was not given up on account of the injury. Before his return a good deal of itching was felt in the back, which caused the parts to be rubbed vigorously. On examination after reaching home, the skin was found to be already greatly congested, and the irritation of the parts increased a great deal during the day and night. On the next day I was called to see him. The skin of the back, nearly to the shoulders, was in a state of active hyperæmia, and already covered with innumerable papules. The inflammatory process extended rapidly downwards nearly to the knees, and forwards upon the abdomen and genitals. In a few days these parts presented all the characteristic appearances of acute eczema in its various stages of progression: general hyperæmia, papules, vesicles, excoriated and exuding surfaces, and crusts. The subjective symptoms were intense itching, stinging, and burning in the parts. Scarcely any clothing could be borne in contact with the skin by day, and sleep was for a few nights almost impossible, but the system generally was only slightly disturbed. The course of the affection need not, however, be given in detail, as it did not vary in any important particulars from that of an ordinary acute eczema of high grade and short duration; the process reaching (under treatment) its height within a week, and rapidly disappearing with the usual retrogressive manifestations.

CASE II. — A gentleman, sixty years old, applied to his right arm above the elbow a fomentation of tincture of arnica on two successive days, on account of a so-called rheumatic pain in the limb. The part became generally reddened and swollen in a few days, and ten days after the applications were made he consulted me. The arm from the elbow to the shoulder at that time was considerably swollen, of a vivid redness, and covered over the lower half of this district with a very thick eruption of papules, many of which were already partially converted into vesicles. Great itching and burning were felt in the part, which gradually ceased as the inflammation subsided. The efflorescence under treatment did not progress beyond the vesicular stage, and the skin returned to its normal state in ten or fourteen days subsequently.

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[1] Read before the Boston Society for Medical Improvement, December 14, 1874.

CASE III. — A gentleman, aged fifty-two years, was thrown from his carriage and sprained his knee. With the consent of his family physician, he dressed the part with fomentations of tincture of arnica and water. After two days' use of these the skin over the knee became so red that the physician advised him not to apply them again. The redness extended down the leg nearly to the ankle, and upon this surface there was developed in a few days a general eruption of papules. A similar process, but of less severity, ensued a day or two later upon the inner surface of the corresponding parts of the other leg, which were more or less in contact with the fomentations. The efflorescence upon the legs did not pass into the vesicular stage generally, but remained at its height for a week, and then very gradually subsided under treatment. Three days after the use of the fomentations, an inflammation of the skin of the face also began, which increased in severity until I saw him, one week after the injury. His whole face was then very much swollen, of a deep red color, and covered with papules and vesicles towards its periphery, whilst upon the central portions there was a very free exudation of serum from many excoriated points, which in parts had already stiffened into crusts. The vesicles and papules on the forehead were arranged in prominent and isolated clusters of two or three individuals in each. The whole had an artificial look, and strongly resembled in appearance a severe case of ivy-poisoning. The subjective symptoms were mainly intense itching with slight burning; and considerable suffering was thereby occasioned for several days. After two days' treatment the amount of free exudation was largely reduced, and no new efflorescence appeared. The swelling and redness were still considerable on the fourteenth day after the beginning of the inflammation, but were rapidly diminishing, and at the end of the month the skin was again in its natural state.

The nature and cause of the affection of the skin in these cases cannot, I think, be misinterpreted. In all of them we have an acute inflammatory process, confined to the upper dermal layers, and manifesting itself, according to the stage reached, by the following appearances: hyperæmia, papules, vesicles, excoriations, crusts, and scales, in regular sequence. The local sensations were intense itching and some degree of burning in the parts affected. There was no constitutional disturbance. In course, character, and sequence of the lesions in their development and retrogression, in the intensity of the subjective and absence of constitutional symptoms, the affection is unmistakably acute eczema. It may be that cases occur in which the inflammation extends so deeply and reaches so high a degree, as to warrant the title dermatitis, but I have never seen them.[1]

The cause was also plainly manifest. The inflammation followed in all the cases the application of tincture of arnica to the skin as a fomentation. In one of the instances, the first, the epidermis may have been slightly broken; but in the others the skin of the parts was whole and healthy at the time of the applications. The inflammation began to show itself after intervals varying from a few hours to several days, and was confined to the part to which the application was made, or extended from this as a centre. In the last case the disease was developed also upon the other knee and upon the face, but by direct contact, nevertheless, with the exciting cause, for the right knee was in contact with the left during the nights that the fomentations were applied to the latter, and the face was frequently rubbed (a constant habit of the patient) with the hands while applying the fomentation. That the hands were not likewise affected may be accounted for by the greater resistance to absorption offered by the thickened epidermis of the palms.

These three cases will serve, as well as more which might be presented, as typical illustrations of the action of arnica at times upon the skin. The affection, as will be seen, follows a very regular course in the character, distribution, and duration of its lesions, differing widely in some of these respects from the wayward manifestations so peculiar to the action of rhus. Like the latter, arnica must therefore be regarded as an irritant poison when applied to the skin of some persons, but of less intensity and probably of less certainty in its action than rhus. With regard to this latter point, the proportionate frequency of poisoning after its external use, I do not know that we can form any judgment. There can be no doubt that tincture of arnica is very often used in the same way as in the cases above given. It has long enjoyed an exceptionally permanent reputation, and almost miraculous healing powers have been attributed to it. Oesterlen says that "its reputation dates from the times when magicians carried on their hocus-pocus with it; from these it passed into the hands of quacks, and finally to physicians." There is scarcely a symptom of disease which, it was at one time thought in Europe, its internal administration could not successfully meet.

The physiological action of both the root and the flowers of arnica is said to be irritant, large doses producing vomiting and diarrhœa, inflammation of the stomach and bowels, headache, and dizziness. Its properties reside in an acrid resin and volatile oil. Our officinal preparations are a tincture, an alcoholic extract, and a plaster. That tincture of arnica has retained for centuries its great reputation as an application in bruises and sprains, and remains to this day perhaps the most popular remedy for such purposes, it may thank the alcohol associated with it, for this beyond doubt is the only active agent in such applications.

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[1] Since writing the above I have received the last annual report of Professor Hebra's skin clinic, in which it is stated that an apprentice rubbed his foot with tincture of arnica and produced so severe a dermatitis as to cause destruction of a portion of the tissues.

I am informed by one of the largest dealers in drugs in this city that their house sells between two and three thousand pounds of arnica flowers yearly, one half of which he thinks is used in veterinary surgery.

If, then, it is used so extensively, why are not cases of poisoning by it of more common occurrence? I believe that they do occur not infrequently, but that they are not recognized. The appearances which follow its use are no doubt often mistaken for the immediate effect, or the sequelæ, of the injury or other trouble for which it was applied. Even the physician, there can be little doubt, often fails to recognize the artificial nature of the eczema he is called to treat, and to connect it with the prior application of arnica to the skin. The almost universal belief in its harmlessness, too, would prevent in most cases the patient from communicating to the physician the fact of its use before the appearance of the disease. It is not to be wondered at, however, that physicians are so little acquainted with these poisonous properties, when we see how little mention is made of them in medical literature. The works on materia medica that I have at hand give it a more or less feeble commendation, but make no allusion to its injurious action upon the skin. Very few of the works on toxicology place arnica among the poisons, and Van Hasselt,[1] who gives the fullest account of its injurious properties when administered internally, says nothing of its action upon the skin. Neither do I recall any reports in medical journals of cases of such affection. In works on dermatology, even, scarcely any mention is made of the subject. In a long list of substances enumerated as capable of producing eczema, in his chapter on this disease, Hebra includes arnica without special mention; but in his article on erythema nodosum he says:[2] "Some medical men, however, suppose that the tincture of arnica is a perfectly harmless remedy in erythema nodosum, and in similar affections. But I would give a friendly warning to those who advocate its use; unless, indeed, they propose to employ it homœopathically and in infinitesimal doses. In the proportion of a drop of the tincture to a pail of water, this substance may certainly be applied without any risk of doing harm. But I have in practice had abundant occasion to observe that the tincture of arnica, even when much diluted, acts most injuriously upon the skin of some persons. I have frequently seen eczema or dermatitis excited by the assiduous application of lotions containing this drug, in the treatment of slight bruises or sprains." Fox,[3] in his brief remarks on Medicinal Rashes, says: "Arnica may produce erythema and swelling of the part to which it is applied, or it may excite a real eczema."

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[1] Handbuch der Giftlehre.

[2] Sydenham Translation, vol. i. page 291.

[3] Skin Diseases, London, 1873.

It is to warn physicians who may be ignorant of these properties belonging to it, and that through them the public may be more generally informed concerning the dangerous character of one of the most popular and useless among domestic external remedies, that I have thus brought the subject before the profession.

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GUM-CUTTING.

BY CHARLES E. BUCKINGHAM, M. D.,
Professor of Obstetrics in Harvard University.

Some months ago among your "Notes and Queries" was a question about cutting gums. A week or two later, a correspondent (E. T. W.) gave a very decided answer as to the propriety and usefulness of the operation. For some time before the question was asked in the Journal, I had been making the same inquiry of physicians whom I met, and I was rather surprised to find among the younger practitioners so many who had never used the gum lancet, and who could not imagine the case in which it would be necessary.

The let-alone system of treatment is good; in very many cases it is the best; but it is not always the best. The relief afforded by a free incision through the gum in some instances in which there was acute pain has, under my observation, been more marked than that afforded by any other operation that I ever saw. The tooth, it is true, in the very great majority of cases finds its way through without difficulty to the child. The first indication to the mother whose child has always been nursed, and never fed, is often the feeling of an incisor against her nipple. In some cases where a proper plan of feeding has been followed, there is as little indication of trouble during dentition. Occasionally when the child is nursed, more frequently when it is fed, and often when it is improperly fed, the little one apparently suffers pain in the mouth, in the head, and in the bowels, whenever a new tooth is about to make its appearance. In another class of badly-fed patients there is always loss of appetite at this time, with sleepless nights, nausea, and vomiting. In others, cough comes on which only exists then, and for which auscultation gives no explanation; and the little patient's sufferings are augmented by "hive syrup," squills, and other nauseants which give no relief, and by "Mrs. Winslow's soothing syrup," and other narcotic drugs, which stupefy but do not cure. There is still another class consisting mainly of improperly-fed children, who have convulsions, sometimes slight it is true, and sometimes fatal. There is no disturbance of the nervous system so far as I know which may not exist in the teething child, and none which may not be aggravated by improper food. Indeed, the time of dentition is the time when by far the greatest number of deaths take place among children, whether the immediate cause be in the head, the chest, or the abdomen.

There are two common notions among maiden ladies, who are often the advisers of mothers younger than themselves; these notions are the source of very great suffering to babies, and occasionally the cause of death. They are, that cutting the gum is very injurious, because "it may callous over afterwards and become so hard" that the tooth cannot get through so easily as if let alone; and secondly, "that the child may bleed to death," after the operation.

To the first of these the reply is, that no union of the gum after it has been cut will ever be any firmer than the gum itself was before it was cut. Cutting the gum may be as great a relief to an obstruction as when an incision is made over a bullet, a piece of bone, a splinter of wood, or a fragment of needle beneath the skin, and the system is trying alone to help it to the surface. More than this, the tooth is not only below the mucous membrane of the gum, but it may be within the sac in which it was formed, and which the force of nature is trying to perforate. If this covering be once cut across, its union (if it ever unites again) will be less perfect than before, and the patient's suffering will be relieved. Suppose the gum should heal after the incision, and the child's sufferings should recur; that is not a good reason for withholding relief now. And if it should suffer again, it can be relieved a second time, and even a third time. I never saw the case in which, if the gum lancet went well through, and was felt upon the surface of the tooth, there was any trouble with that particular tooth afterwards. It surely never could retract, and become deeper in the jaw than before.

The first effect of the incision is the relief of local pain by the oozing of blood. This is more particularly the case in those instances in which the gums are dry and hot, and there is no secretion from the mucous follicles nor from the salivary glands. An incision simply through the mucous membrane is followed by blood, and that by saliva in a very short time, giving great temporary relief; but if the lancet is felt to graze the tooth through the whole length of the incision, the relief is more than temporary; the immediate covering of the tooth never unites again, the growth of the tooth and the elasticity of the tissue preventing that process. If the offending tooth be a molar, a crucial incision is better than a longitudinal one. The relief is often so great from gum-cutting that I have seen children who were crying with agony, before the operation, look up in my face and laugh through their tears; and I have known a child to come to me, and show by unmistakable signs her remembrance of the benefit received on another occasion, by turning her head over upon my knees, and pointing to the swelling above a cuspid tooth.

The second effect of gum-cutting is the relief of obstinate diarrhœa, obstinate constipation, and of all apparent signs of diseased brain, such as vomiting, stupor, convulsions, enlarged and non-contracting pupil. This relief I have seen more than once during the past year.

The second notion with which non-professional persons are possessed is the hæmorrhagic. I have no doubt that in my thirty years of professional life, I have had quoted to me, on an average, more than one case a year of fatal hæmorrhage from gum-cutting. But I never saw such a case, and I never spoke with a person who had seen one; it had always "been told to her" by some one else. I can imagine that it might be the possible result in one of the so-called "bleeders;" but a prick with any other instrument in any other part would in that case be likely to have the same result. The nearest approach to this condition that ever came under my observation was some ten or fifteen years ago, in the case of a young man of at least twenty-five years of age, who died of hæmorrhage following the extraction of a tooth.

There is no operation, no medicine, which may not be followed by death. So sometimes neglect of medicine or neglect of an operation is followed by death. To offset any death resulting from gum-cutting (an accident which I never witnessed and never heard well authenticated), I could point to large numbers of infants whose comfort has been established, whose lives I believe to have been saved. There are many more, whose comfort I believe to have been sacrificed, and whose lives I believe to have been destroyed, by the prejudice against the gum lancet.

RECENT PROGRESS IN PHYSIOLOGY.

BY H. P. BOWDITCH, M. D.

VASO-MOTOR NERVES.

One of the most important recent advances in our knowledge of the physiology of the circulation is the distinct recognition of the existence of a class of nerve-fibres whose function is to *dilate* the vessels to whose muscular walls they are distributed. That vascular dilatation may follow the stimulation of a nerve supplying the vessels under observation is not a recent discovery. The fact that irritation of the chorda tympani produces vascular dilatation and increased secretion in the submaxillary gland was observed by Bernard as long ago as 1858, but it is only within a few years that the cause of this dilatation has been shown not to lie in the increased glandular activity. This point may be regarded as having been settled by the experiments of Heidenhain,[1] who found that on a dog under the influence of atropine, irritation of the chorda tympani caused no increased salivary secretion, though the vascular dilatation took place as usual.

For a long time the fibres of the chorda tympani in the submaxillary gland and the nervi erigentes distributed to the corpora cavernosa penis, as described by Eckhard[2] and Lovén[3] were regarded as the only nerves possessing the power of producing vascular dilatation in the parts supplied by them, the observations of Bernard which led him to attribute to the pneumogastric nerve a similar power over the vessels of the kidney having lacked confirmation. Quite recently, however, Vulpian[4] has shown that irritation of the lingual nerve causes a vascular dilatation in the corresponding side of the tongue. That this effect is due to the fibres of the chorda tympani, which are mingled with the lingual nerve, is proved by the fact that the dilatation does not take place when the former nerve has been divided, fifteen days previously, in the tympanum, and its fibres thus caused to degenerate throughout their course. Vulpian's observation, therefore, simply shows that the dilating power of the chorda tympani is not confined to those fibres which are distributed to the submaxillary gland.

Although the power of the nerves to dilate the blood-vessels has not been distinctly demonstrated, except in the regions alluded to, Vulpian is of the opinion that "vaso-dilator" nerves exist throughout the body, mingled with "vaso-constrictors" in such a way as to prevent their functions from being readily investigated. A similar view has also been adopted by Goltz,[5] who has invoked the power of the "vaso-dilator" nerves to explain phenomena which are usually regarded as caused by a paralysis of the "vaso-constrictors." The well-known fact that section of the sciatic nerve in an animal is followed by a rise of temperature in the corresponding limb, and that this increased temperature is only a temporary phenomenon, is explained by Goltz on the hypothesis that "vaso-dilator" nerve-fibres in the sciatic nerve are irritated by the section, causing a dilatation of the blood-vessels of the limb, and that after the effect of this irritation has passed away, the vessels resume their normal dimensions. In support of this view, Goltz presents the following observations: —

1. After the rise of temperature caused by section of the sciatic nerve

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[1] Pflüger's Archiv, v. page 309.

[2] Beiträge, iii. page 125.

[3] Ludwig's Arbeiten, 1866, page 1.

[4] Leçons sur l'appareil vaso-moteur: Paris, 1875, page 154.

[5] Pflüger's Archiv, ix. page 174.

has disappeared, it may be again produced by a second section of the nerve nearer the extremity.

2. If the rise of temperature which follows section of the sciatic nerve is really a phenomenon of irritation, a similar effect ought to be produced by other sorts of irritation; for example, by electrical stimulation of the nerve. Goltz finds that this is actually the case, electrical or chemical irritation of the lumbar cord or of the sciatic nerve, either in its continuity or at its peripheric end, causing a decided increase of temperature in the lower limbs. A slight and transient fall of temperature which generally precedes the rise is referred by Goltz to a displacement of the thermometer at the beginning of the irritation by the tetanic contraction of the muscles of the leg.

Goltz therefore concludes that the section of the nerve of a limb irritates the vaso-dilator fibres contained in it, and that this condition of irritation may last days or even weeks. It is to be noticed that this theory affords no explanation of the fact that irritation of the sympathetic nerve of the neck always causes, under normal conditions, a contraction of the vessels of the head, while its section with equal certainty produces vascular dilatation.

Quite recently Putzeys and Tarchanoff,[1] working under the direction of Goltz, have subjected the whole question to a renewed investigation. They find that section of the sciatic nerve on dogs, ducks, and frogs causes an immediate dilatation of the vessels of the foot, made evident both by the appearance of the vessels where they can be seen, and by the fact that blood flows more abundantly from a wound in the foot on the side where the nerve has been divided than on the opposite side. Electrical irritation of the peripheric end of the divided nerve causes, on the other hand, a decided contraction of the vessels, which, when the irritation lasts several minutes, gives place to a dilatation caused by exhaustion. Section of the sciatic nerve of a dog causes, as Goltz also found, a decided rise of temperature in the foot of the same side, while irritation of the peripheric end of the nerve causes, when the dog is curarized to paralyze the voluntary muscles, not a rise, but a fall, of temperature. The rise of temperature observed by Goltz as the result of irritation of the sciatic nerve is regarded, therefore, by Putzeys and Tarchanoff as the effect of over-irritation or exhaustion. The existence of "vaso-dilator" fibres in the sciatic nerve cannot therefore be considered as demonstrated.

In consideration of all these observations, the most probable view which we can take of the relations between the vaso-motor nerves and the vessels to which they are distributed seems to be the following: —

The smooth muscles of the blood-vessels are kept in a state of moderate tonic contraction under the influence of a plexus of nerve-fibres and ganglion cells closely surrounding and imbedded in the vascular walls.[1] This tonic contraction is increased by an impulse coming from the central nervous system through the "vaso-constrictor" nerves.

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[1] Centralblatt für die medicinischen Wissenschaften, 1874, page 641.

That these "vaso-constrictor" nerves are in a state of constant activity is evident from the fact that vascular dilatation follows their section (for example, in the cervical sympathetic or sciatic nerves). This vascular dilatation is, however, not permanent. After ten days or a fortnight, the vessels assume their original dimensions. To explain this, we must assume that after separation from the central nervous system the nervous plexus surrounding the vessels gradually acquires a higher degree of activity than it possessed before. A justification of this hypothesis is found in the analogous observation that the reflex centres in the spinal cord acquire a greater irritability after their separation from the brain by a section in the cervical region.

The "vaso-dilator" nerves act by inhibiting the activity of the ganglion cells in the nervous plexus around the vessels, thus causing a diminution of the vascular tonicity. These nerves are not in a state of continual activity, as is proved by the failure of the vessels to contract when the nerves are divided.[2] They are to be regarded, therefore, not as constant but as occasional antagonists of the "vaso-constrictor" nerves.

According to this theory, there is an evident analogy between the muscular walls of the blood-vessels and the heart. In both, the conditions of activity are contained in the organs themselves; and in both, influences derived from the central nervous system may either increase or diminish this activity, the vagus nerve being analogous to the vaso-dilators and the "accelerator" nerve to the vaso-constrictors.

It will be noticed that this theory affords no explanation of the observation of Goltz, above alluded to, on the effect of a second section of the sciatic nerve on the temperature of the limb. Should this observation be confirmed, some modification of the above theory will be necessary.

(*To be concluded.*)

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THOMPSON ON THE USE OF PHOSPHORUS.[3]

The views of Mr. Thompson are already pretty well known to readers of the *Practitioner*, and this work presents those views in a somewhat amplified and systematic form. The author has worked out the pharmacy of the drug with considerable care, and offers us some formulæ which have already appeared in the reports on therapeutics in this JOURNAL, as well as others which have not previously come under the writer's notice. One which he considers to possess many advantages is as follows: —

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[1] See Vulpian, op. cit. page 36.

[2] Vulpian, Archives de Physiologie, vi. page 175.

[3] *Free Phosphorus in Medicine, with Special Reference to its Use in Neuralgia. A Contribution to Materia Medica and Therapeutics.* By J. Ashburton Thompson. London: H. K. Lewis. 1874.

Tincture of phosphorus	ʒ iij· ♏ x.
Glycerine, enough to make	℥ iss.
Spirit of peppermint	♏v. M.

The tincture of phosphorus is a saturated one, and should be made with *absolute* alcohol.

A formula very similar to the above, given by Mr. Thompson in the *Practitioner*, and of which he makes the same statements as of the present one, has been used by the writer, who cannot agree with the author in saying that it is almost free from any phosphoric taste and does not cause unpleasant eructations. Patients refer to it as "decoction of matches." It is, however, as the author says, "the most elegant fluid preparation of free phosphorus as yet at command." A solution in cod-liver oil he considers as in every way preferable to the more usual one in olive oil. Pills he looks upon with distrust, although he speaks favorably of those made by two London firms; the precise method of manufacture, however, is not given.

The therapeutic portions of the book are worked out with a good deal of care, and no little attention is given to the toxic symptoms, a point which, on the author's own showing and with the doses he uses, is one of no small importance. We fear, however, that Mr. Thompson is to be looked upon as an enthusiast. If all that he says is true, the most plodding and cautious man of science, the acutest of lawyers, the most learned of divines, might find in a bottle of "No. 10" a more reliable and potent inspiration than is afforded even to the most bacchanalian of poets by his "little brown jug;" and for the benefit of the community a barrel should be kept on tap in all newspaper offices, courts, and State houses, with a hogshead of the largest size for the use of Congress. A large stimulant dose gives coolness, clearness, or dexterity of mind, while a short course of phosphorus confers freshness, *originality*, and energy on the mental processes.

The most important of the diseases in which phosphorus has been used by Mr. Thompson is neuralgia, where he claims great success for his favorite drug. Both here and in other diseases, it is necessary to use larger doses of the drug than are usually given. If frequent failures are to be avoided, at least one twelfth of a grain should be given every four hours *from the beginning*. A subsequent increase of the dose does not have the same effect.

In locomotor ataxy, Mr. Thompson gives no experience of his own, but puts together the four cases of Dujardin-Beaumetz, all favorable, with those of Mr. Bradley (eighteen in number) all unfavorable; of the latter, however, he remarks that the dose was not large enough to give the drug a fair trial.

He proposes it also for use as a stimulant in the later stages of low fevers. Venereal excitement is, he is sure, far from an invariable, or even a common, symptom of its use. It would appear that on persons in health its effect, in therapeutic doses, in this direction is nil.

Finally, he says, "Too great caution in the use of this body as a medicine cannot be enjoined. Nor should it be trusted at all to the hands of the inexperienced." The work may be regarded as a very readable and thorough monograph on a subject not very familiar to many physicians; and, making perhaps no more than the usual allowances for the enthusiasm of the advocate, the book is apparently a reliable one. We should certainly recommend its perusal to any one who wishes to use this drug efficiently and safely.

THE EARLY MEDICAL HISTORY OF THE UNITED STATES.

THIS work[1] comprises a large collection of historical and biographical matter relating to the early medical profession of this country. It was intended to form a part of a full history of the rise and progress of American education, which was thought desirable for the Vienna Exhibition, but which from unavoidable circumstances was never completed. It was compiled by Dr. Toner, of Washington, at the request of a convention of school superintendents who met in that city in 1872. Dr. Toner has worked with the zeal of an enthusiast in collecting from different sources a great amount of information now for the first time given to the profession. He has gathered many facts from local histories, medical biographies, and magazines, not accessible to the general reader, and has put them together in a compact form. It is evident that he has used largely the library of the Surgeon-General's office, which is by far the best collection of medical books in the country, and which will always be a monument to the wisdom and foresight of those who began it. The result of Dr. Toner's labor is considered of so much importance that it is now published by the Secretary of the Interior, on the warm recommendation of the Commissioner of Education.

We have had experience enough ourselves to know how difficult it is to have names and dates, when they are numerous, printed correctly, and while we look with much leniency upon mistakes in such matters, we feel bound to point out some for which the printer is not responsible.

Dr. Toner falls into a singular error when he says (page 24) that Dr Charles Jarvis married "a granddaughter of the first Baron Pepperille." We think that it would be difficult to identify this member of the English House of Peers. The truth is the lady was a granddaughter of Sir William Pepperrell, who was a baronet but not a baron. In speaking of Dr. Oliver Prescott, a brother of the hero of Bunker Hill, Dr. Toner says (page 26) that he was "a physician of Hanover." Dr. Prescott was born and always lived in Groton, Massachusetts, and died there, but not at the time given by our author. Dr. Oliver Wolcott was not a native of Massachusetts, as stated in the Contributions (page 66), but of Connecticut. It is said (page 57) that "in 1690 Governor Slaughter of New York died suddenly." This undoubtedly refers to Governor Sloughter who died in the summer of 1816. There are too many such mistakes for an accurate historical work. We pass over instances like the following, which indicate careless proof-reading. Francis Lee Baron is written (page 19) for Francis Le Baron, Melton (page 22) for Milton, Shay's Rebellion (page 27) for Shays's Rebellion, besides many others which might be noted.

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[1] *Contributions to the Annals of Medical Progress and Medical Education in the United States before and during the War of Independence.* By JOSEPH M. TONER, M. D. Washington: Government Printing Office. 1874. Pp. 118.

We had always supposed that the Bible we are in the habit of reading, which is known as the King James's version, was first printed in the reign of that monarch, but we are told (page 60) that it was published in 1582. Such errors throw a feeling of doubt over the whole book, — not the Bible, but the other one.

Dr. Toner's style is not always clear, and does not always conform to strict idiomatic usage; but even with these defects he has put the medical profession under great obligations to himself for making a beginning. The work really has much merit, — so much that its demerits are the more conspicuous. We sincerely hope and trust that Dr. Toner will publish, at some future day, a revised and enlarged edition of this book, which will fill a want that has long been felt.

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THOMPSON ON THE URINARY ORGANS.[1]

We have here an American reprint of these well-known lectures. As an illustration of the favor with which they are regarded by the profession, we recall the fact that a French translation of them has recently been published in Paris by two of the leading medical publishers simultaneously. The French version contains three additional lectures on the treatment of vesical calculus, published in the *Lancet* (March, April, and December, 1874) since the last English edition of the lectures. It is somewhat to be regretted that the American publishers did not include these lectures in their volume.

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PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M. D., SECRETARY.

December 14, 1874. — *Poisonous Action of Tincture of Arnica upon the Skin.* — Dr. J. C. White read a paper on this subject which is presented in full in the present number of the Journal.

Dr. Cabot said that he had seen several such cases, and spoke especially of a gentleman, both of whose legs were covered with acute eczema, after an application of arnica.

Dr. Jackson said that the observations reported by Dr. White were interesting ones, and should be generally known, as he thought many general practitioners considered arnica a perfectly harmless application.

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[1] *Clinical Lectures on Diseases of the Urinary Organs.* By Sir Henry Thompson. Second American from the third and revised English edition, with illustrations. Philadelphia: Henry C. Lea. 1874.

Enchondroma of the Foot. — DR. CABOT reported the case and showed the specimen.

The patient was a girl twenty-two years old. Seven years ago a flat-iron fell on her foot. Soon afterwards she noticed a lump at the point of injury. The swelling grew very slowly and with little pain for five years. The patient was somewhat lame, however, pressure on the sole of the foot causing pain. At the end of five years the tumor was about the size of a marble. Since then it has grown more rapidly, and has been more painful. Lameness has been increasing. At the time of the patient's entrance to the hospital the tumor was hard, immovable, somewhat red over the centre, painful, and tender to the touch. It was irregular, and felt as if it were lobulated. The corresponding toe was retracted.

On removal, the growth was found to be an enchondroma, of remarkable hardness and firmness. It had involved the distal end of the third metatarsal bone, and was in shape an irregular cube, its respective diameters being about one, one and a quarter, and one and a half inches. On section, the external portion was found to be the densest, being, in fact, an almost bony capsule, with here and there deposits of softer enchondromatous tissue. The central part was softer, and, as far as external appearances went, not unlike the cancellated structure of bone.

Dermoid Cyst of the Ovary. — DR. CABOT also showed a dermoid ovarian cyst, which he had removed. (A full report of this case will be published later.) The patient had some vomiting on recovering from the ether and during the first twenty-four hours, and an attack of dyspnœa with suffocating cough the first night. After that time she steadily improved, the temperature and pulse falling regularly each day, and being at date (December 14) respectively 99.7°, and 88°. The cyst with its contents weighed eight pounds and four ounces. It contained a thick fluid, cheesy masses, hairs, and one perfectly formed, full-sized incisor tooth.

Case of Incarceration of the Colon resulting from a Previous Attack of Typhlitis. — DR. LYMAN reported the case and showed the specimen.

The patient, a man aged thirty-eight years, entered City Hospital October 19, 1873, with a well-marked attack of typhlitis. At the end of three weeks he was discharged well. At that time he was under the care of Dr. Stedman.

November 9, 1874, the patient was readmitted, reporting that he had been in good health since the previous attack until two days before his entrance, when he went to bed as well as usual, but towards morning was awakened by colicky pains in the left inguinal region, attended by vomiting and diarrhœa. The diarrhœa ceased at seven o'clock in the morning, after which time there had been no movement; the colicky pains continued, the abdomen becoming quite tympanitic and tender on pressure, vomiting recurred frequently, and no food was retained. Micturition was painful, tongue coated, face flushed but not pinched, decubitus dorsal, but limbs were extended; respiration was easy, motions of diaphragm not restrained. The patient had passed but a small amount of urine during the previous twenty-four hours. An injection of oil and turpentine was given, but it came away without fæcal matter. Turpentine stupes were applied, and the pain was controlled by subcutaneous injections of morphine. A small amount of urine was withdrawn by catheter. Temperature 100°, pulse 116, respiration 46.

He remained about the same until the 13th, when an injection, after five grains of calomel with half a grain of opium, followed after four hours by oil, brought away one hard fæcal mass and a good deal of flatus. That night he had a large, loose dejection. From that time he gradually improved.

On the 22d, the entry in the case book was as follows: "The tympany and pain having sufficiently disappeared to allow of deeper pressure, a hard mass was discovered in the left inguinal region, as large as the fist. No change was effected in its shape; on pressure it felt hard and immovable." Ox-gall in small doses of castor-oil was ordered three times daily.

November 28th. For the past week the patient has continued about the same, but still has pain at times in the same position as before. The tumor is apparently unchanged. A saline mixture was ordered.

December 2d. Bowels continue loose, and the tumor diminishes. The patient still vomits occasionally, and to-day is quite feverish and complains of prostration. A fever-mixture was substituted for the saline mixture.

December 3d. The patient fails in strength. Fæcal discharges still contain hard lumps. Vomited bile several times. Whiskey was ordered, and as he asked for cider it was allowed.

December 4th. Some appearances of jaundice in conjunctivæ and face. The patient has had a severe rigor. Tongue dry and coated.

December 6th. Pulse weaker. A well-marked gurgling on pressure over tumor. Patient again complains of pain all along the transverse colon. Bowels moved by injection.

December 7th. A violent attack of colic referred to region of tumor. Pain relieved by morphia.

December 8th. Abdomen quite tympanitic this morning, and tender. Pulse more rapid and feeble. Great prostration. In the afternoon the patient complained of great pain, became collapsed, sank rapidly, and died.

Autopsy, forty-two hours after death. A few ounces of serum in left pleural cavity. Pleural surfaces covered with creamy lymph. Lungs congested. Right ventricle of heart enlarged. Large soft clot in right side of heart. Two or three thickened spots on aorta. Heart a little pale; otherwise normal.

Marked tympany of abdomen. General peritonitis of both old and recent date, with but very little fluid in peritoneum. All the intestines covered with lymph, gluing them together, but not so firmly that they could not be separated by the fingers. Colon exceedingly distended. On the lateral and posterior portions of the peritoneal cavity, adhesions much stronger, requiring the aid of a knife and great care so as not to wound the intestine. The cæcum was so firmly bound to the abdominal wall by old adhesions that its parts could not be cleanly dissected out, and one or two circumscribed abscesses were formed in these adhesions. A coil of the small intestine was firmly bound to the abdominal wall just outside the descending colon and below the crest of the ilium behind, forming with its mesentery an arch through which the colon had to pass. This arch was also filled with a loop of small intestines, and other similar loops were pretty firmly adherent about and above it, so as to nearly if not quite strangulate the colon. Vessels were observed in these adhesions, proving that they were not of recent date. The descending colon was pressed upon and was nearly empty. The transverse and ascending colon was much distended with gas, and contained a tolerable amount of fæces. Between the colon and this group of intestines, about the obstructed portion immediately above the sigmoid flexure, were very strong adhesions, and in them a circumscribed abscess of old date.

The descending colon below the obstruction was contracted to the size of the small intestine. The kidneys were rather large; perhaps a little cloudy. Brain normal. Gall bladder large, and filled with bile. Liver contained numerous puriform collections in the branches of the portal vein, some of the branches being as large as a crow quill. There were also minute metastatic abscesses in groups and surrounded by a greenish discoloration.

The general intestinal surface was nearly normal. In the appendix cæci, about an inch and a quarter from its orifice, a "cherry stone" (?) lay loose; beyond this, the appendix was impervious and thoroughly bound to the parietal peritoneum. A number of circumscribed abscesses were scattered over the peritoneum.

Dr. Lyman remarked that the foregoing case was especially interesting from a diagnostic point of view. It was shown to the hospital students for the first fortnight as a case of obstruction from some unknown cause, and not as peritonitis, for which the patient was admitted. After the obstruction had apparently yielded, the tumor was discovered, and for a week or more it was hoped it would prove to be nothing more than a fæcal accumulation, or possibly some glandular growth; but the obstruction recurring, the case proved fatal. The history rendered it probable at first that the obstruction might be due to old adhesions about the ileo-cæcal region, but though carefully sought for, there was at no time discoverable any especial tenderness or swelling in that vicinity, the pain being persistently referred to the other side, where in fact the incarceration was eventually proved to be located. The fatal result from peritonitis and pyæmia adds another to the cases which have been presented to the society illustrating the consequences which may eventually happen to a patient who has apparently recovered entirely from tuphlo-enteritis.

Aneurism of the Aorta. — Dr. Fitz showed a specimen of aneurism of the arch of the aorta, sent by Dr. A. O. Hitchcock, of Fitchburg. The sac was as large as an infant's head. The mucous membrane over the origin of the right primary bronchus was extensively ulcerated, and the aneurismal wall was thin at the corresponding part. The cavity of the right chest contained about two quarts of bloody serum, and the lung was compressed. Dr. Hitchcock had removed three pints of fluid from this side with the aspirator, but the lung did not expand after the operation. The dyspnœa was relieved, however, and did not return with the subsequent effusion. The left lung and pleural cavity presented no abnormal appearances.

Dr. Jackson said that he wished again to call attention to the fact that in the ulceration of the mucous membrane of the trachea and œsophagus which is so frequently found when these organs are pressed upon by an aneurismal tumor, nature seems to be working contrary to her usual course of striving to mitigate the evil effects of disease, as it is evidently an attempt to form a communication between the aneurism and the organ pressed upon; the result of this process would of course be fatal. He also referred to the fact that the heart itself was healthy, in spite of the gravity of the disease so near it, a fact often noticed in these cases.

Extensive Disease of Kidneys and Bladder. — DR. FITZ showed the kidneys and bladder from a patient of Dr. Cabot. The left kidney presented a marked degree of arrest of development, being one inch and a half long, a quarter of an inch thick, and half an inch in breadth. The left renal artery was of about the volume of a piece of ordinary twine. The surface of the kidney was smooth, presenting no indication of a division into lobules. The ureter was but little smaller than normal. The right kidney, nearly double the normal size, was six inches long and three inches broad. The pelvis and ureter were very much dilated, the latter of the volume of the thumb in parts, its walls thickened. Both were filled with pus and urine, and the kidney had become sacculated. The surface of the sacculi was smooth, except in one instance, where a cheesy mass of the size of a cherry existed as part of the wall, its surface eroded, and continuous with a limited infiltrated and ulcerated portion of the calyx. The secreting substance of the kidney presented an advanced degree of fatty degeneration.

The bladder was contracted, its mucous membrane injected and ecchymosed. A sinus extended from near the verumontanum, behind the prostate, into the cellular tissue between the rectum and the bladder, where an abscess existed extending upwards as far as the ends of the seminal vesicles and the internal sphincter. The walls were dense, pigmented, and somewhat trabeculated. A few old adhesions existed between the peritoneal surfaces in Douglass's fossa. Between the bladder and the ramus of the pubes on the left, there was an abscess communicating with the rectum above the inner sphincter by an opening half an inch in diameter. Its communication with the urethra was certain, owing to the escape of urine from the rectum during life, and must have existed in front of the prostate.

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CONCERNING THE SEWERAGE OF BOSTON.

THE small-pox epidemic being under control, the attention of the Board of Health of Boston, which that epidemic had called into existence, was at once turned to the general sanitary condition of the city. Numerous reforms were started, and a thorough inspection of the city showed that the demand made by the public for the creation of a Board of Health had been made none too early.

One of the first defects in the sanitary arrangements of the city, to which public attention was called, was the condition of the sewerage. The rapid growth of the city, the extensive filling of large sections, and the consequent enlargement of a system of sewerage utterly inadequate to the demands necessarily made upon it, have all conspired to bring about a condition of things far from flattering to those members of the city council who have in charge this special department of the public works.

In the first report of the Board of Health (1873), the attention of the city council was called to the very serious defects which then existed in the sewerage of the city. These statements, however, were allowed to pass unheeded, and thus a bad matter rapidly grew worse. At length the health of that portion of the city lying adjacent to the so-called Stony Brook sewer began seriously to suffer, and, May 11, 1874, the Board of Health sent to the city council a special communication calling their attention again to the existing defects in the sewerage system of the city, and citing as proof the numerous cases of serious illness then existing in the neighborhood of Stony Brook sewer. Forced at length by public opinion and the threatening of lawsuits, the committee on sewers decided that the old sewer should be extended from Centre Street through Amory and School Streets. A temporary relief was at once experienced by the residents of that section of the city.

In the second annual report of the Board of Health (1874), it was stated that the whole system of sewerage was wrong. It is well known that the city is almost perfectly encircled by the open mouths of sewers constantly discharging their contents where, with the next receding tide, they are left to disseminate their foul odors over whatever portion of the city the prevailing wind shall favor. A large section of the city is entirely destitute of any proper sewerage whatever, and the sickly condition of these districts is a disgrace to those in whose hands alone the remedy lies. The Board of Health, by the very provisions of the ordinance which created it, can only indicate how great is the need of reform in the matter of the city sewerage; it is powerless to execute even the simplest remedial measures.

Just as the term of the city council for 1874 expired, the Board of Health sent in its fourth remonstrance against the existing evil, and urged more strongly than ever that measures be at once taken to remedy the condition before some fearful epidemic comes, as come it must if some provisions be not at once adopted for furnishing to the whole city a proper supply of pure, fresh air, unpolluted by a defective system of sewerage.

Thanks again to a successful citizens' movement, a new and better city council has come into power. To them the fourth communication of the Board of Health has been referred. In this communication the defects in our present system of sewerage are clearly pointed out and the method of remedying the evil is also alluded to. The most important suggestion in that communication is that a scientific commission be at once appointed to make a careful examination of the city, and report a system of sewerage which shall be made with reference to the future growth as well as the present needs of the city.

In his inaugural address the mayor strongly indorsed the communication of the Board of Health, and we look for speedy and favorable action on this subject by the city council, who alone have power to act in the matter.

The past policy of the sewerage department has been at least one of folly, if not of culpable neglect; we look for the adoption of a far different course of action by the present city council, if they cherish at all the hope of preserving a good sanitary condition of Boston.

THE NEW CITY CHARTER.

The new charter for the city of Boston proposes to make some very important provisions for the future health of the inhabitants. The health department is to consist, as at present, of three persons, one of whom is to be a physician, and only one of the board is to be appointed annually. The rights, powers, and duties of the board are to be such as the law of the State gives to all such officers, and among them are sundry duties not belonging to our present board. Their labors are to be increased nominally, it is true, but as it is proposed to place under their control many matters now attended to elsewhere, it will be strange indeed if they are not able to do their work with more satisfaction both to themselves and to the public. There can be no excuse for a continued unwholesome spot in Boston if the responsibility be placed in the hands of three honorable and capable men, such as we believe our present Board of Health to be. There will be no necessity to wait for one set of men to decide before another set can act. It will be for them to keep our streets clean; our vaults and cesspools free from offence; our provisions wholesome; our public baths in order; our children vaccinated; our burial-grounds in neat condition. The choice of city physician and of all other officers of health will be made by them; and it is hardly probable that, with a board appointed as this is likely to be, there can be any of the sly elections such as have sometimes been made when it was necessary to have the concurrent vote of two legislative bodies.

At first we were a little disappointed that the City Hospital was not to be under the control of this same body, but on looking at the sections concerning this matter we are satisfied that a better plan is proposed. Indeed, it would be placing too much labor upon the three men. The appointment of a new man yearly, to act for five years with four men who have already been in office as trustees, is very much better than the present plan, by which a political party vote may be the means of putting a bad man in or a good man out of office.

If other parts of the new charter are as good as this, we hope it will be adopted.

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THE USE AND ABUSE OF THE GYMNASIUM.

The two severe accidents occurring during gymnastic exercise recorded in our hospital reports, in one case proving fatal, bring into a strong light the dangers attending the system on which our gymnasia are usually conducted. It is rare, fortunately, that the faults of this system are made apparent by a melancholy accident like that which occurred lately at the gymnasium of the Institute of Technology, but it is only in such cases that the public generally is warned that exercise in the gymnasium is not confined to moderate limits, but may mean work of a much more serious character. The weak and the strong alike are led step by step until the point of endurance has been passed by many, in a vain attempt to emulate feats which should be attempted only by the most powerful and skilled gymnasts. Indeed, some of the performances daily practised by many of our young men should be absolutely prohibited in the gymnasium. It is hardly necessary to say that great discrimination should be made in regard to the character of exercise suitable to each individual; and that is particularly true in the case of young men and boys, who are the most constant frequenters of the gymnasium. During the period of adolescence injuries may be inflicted which will eventually break down the most powerful frames. Cases of this kind are common enough to the physician.

The remedy is a simple one. Place the gymnasium under the control of a medical officer who shall be the sole judge of the exercise suitable for each individual. Exclude acrobatic performances altogether, and we shall hear less of strained hearts and weakened lungs, while severe injuries like those we have to-day to record will be unknown.

This system of supervision, we understand, has been fully tried at Amherst College, and has worked in the most satisfactory manner.

MEDICAL NOTES.

— Professor Billroth, of Vienna, has recently, for the second time, performed the operation of extirpation of the entire larynx. The patient, a man aged fifty years, had for some time suffered from hoarseness and increasing dyspnœa. Dr. Schrötter, by laryngoscopic examination, detected on the left vocal cord a nodulated growth, apparently adherent to the mucous membrane, and which he diagnosticated to be an epithelioma. By the rapid progress of the disease the larynx became affected and the dyspnœa constantly increased, so that Dr. Billroth proposed to operate, giving at the same time a favorable prognosis with regard to the return of the disease, on the ground that no infiltration of the adjacent lymphatic glands could be detected. After the operation, a microscopic examination of the specimen completely confirmed the diagnosis of Dr. Schrötter. The patient died in five days, apparently from hypostatic pneumonia.

— According to Professor Friedreich (*Medical Times and Gazette*) the insufficiency of the valves of the femoral veins is a serious condition, inasmuch as it favors the development of varix and œdema of the legs, and may give rise to profuse venous hæmorrhage in operations on the upper part of the thigh. The valvular insufficiency, which is not uncommon, may be detected by rotating the thigh outwards and laying the finger lightly on the upper part of the vein, immediately below Poupart's ligament. If the upper valves are insufficient, there may then be felt a strong whiz when the patient gives a short cough or otherwise rapidly contracts the abdominal muscles. Under the same circumstances the ear, instead of the finger, may detect a deep bruit.

— Professor Austin Flint, Jr., has been appointed Surgeon-General of the State of New York, on the staff of Governor Tilden.

— In the last number of the *Nation* there is a review of Mr. Frank Vincent's book, the "Land of the White Elephant." The following extract may be interesting to young mothers: —

The King of Ava's elephant is thus described: "The Mandalay animal I found to be a male of medium size, with *white eyes*, and a forehead and ears *spotted* white, appearing as if they had been rubbed with pumice-stone or sand-paper; but the remainder of the body was as 'black as a coal.' He was a vicious brute, chained by the fore-legs in the centre of a large shed, and was surrounded with the 'adjuncts of royalty' — gold and white cloth umbrellas, an embroidered canopy above, and some bundles of spears in the corners of the room. The attendants told me that a young one . . . . was suckled by twelve women hired for the express purpose; these elephant 'wet-nurses' receiving 30 reals per measure, and thinking it a great honor to serve in such capacity."

This is suckling extraordinary, but the custom of the country in this respect is apt to excite comment from strangers. Mr. Vincent says: "I have frequently seen babes at their mother's breast alternating the nourishment of 'Nature's Nile' with pulls and puffs at their cheroots."

— It is with great gratification that we record the re-appointment of Dr. Dale as Surgeon-General of Massachusetts. The position has long been filled most worthily by the present incumbent, and the State is to be congratulated upon Governor Gaston's wisdom in determining the "survival of the fittest" in the evolution attending his staff-appointments. Very few realize how persistent Dr. Dale has been in maintaining the honor and dignity of the profession in the face of uncommon intrigue and opposition.

— Dr. Keith, of Edinburgh, is said to have performed ovariotomy now 196 times, with the low mortality of late years of only some 10 per cent. of the cases operated upon.

The Committee of the American Medical Association are again before Congress with a bill for increasing the efficiency of the Army Medical Staff.

— We learn from the *British Medical Journal* that a case of death from the administration of bichloride of methylene occurred a short time since at the Royal London Ophthalmic Hospital. The patient was suffering from caries of bone near the lachrymal sac. Operation was determined on, and Mr. Buller administered the anæsthetic, bichloride of methylene, by means of a perforated leather inhaler covered with flannel. Three drachms were inhaled, and in two minutes the breathing became stertorous. After the operation, the pulse at the wrist suddenly failed, and then the respiration ceased. All known means for restoring animation were employed, but without avail.

SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

SINCE the last report (January 7th) operations have been performed under ether in the following cases: —

1. Vesico-vaginal fistula. 2. Cancer of upper jaw. 3. Compound fracture of tibia and fibula into ankle-joint. 4. Fracture of cervical vertebræ. 5. Necrosis of nasal bones after injury: deformity of face. 6. Hydrocele of cord. 7. Hydrocele of tunica vaginalis. 8. Cystic tumor of breast. 9. Necrosis of tibia. 10. Epithelial cancer of anus and rectum.

2. *Cancer of Upper Jaw.*— In this case, which was past operation, the patient, an old woman, was suffering excruciating pain which she referred to the cheek covering the tumor, and to the ala nasi. Dr. Bigelow experimentally divided with a tenotomy knife, through a puncture in the cheek, the infra-orbital branch of the superior maxillary nerve. The operation has been followed by an entire remission of pain during the last week.

3. *Compound Fracture of Tibia and Fibula into Ankle-Joint.* — A middle-aged man fell through a culvert, striking squarely upon his feet. He was admitted to the hospital three weeks ago, the accident having happened twelve days before. There was a compound fracture of both bones at the junction of the middle and lower thirds of the leg, with great displacement; the foot was œdematous. The patient exhibited signs of prostration out of proportion to the obvious injury; it was apparent that he would die soon, unless he should rally so as to justify an amputation. Dr. Bigelow decided to perform a provisional amputation at the fracture, through the tissues infiltrated by lymph, rather than to open afresh the sheaths of sound muscles higher up. Upon examining the ankle after its removal, the prostration of the patient was explained by the discovery of extensive cracks leading into the joint. The anterior and posterior edges of the tibia were thus in part detached by the convex surface of the astragalus being forced against it when the patient alighted on his feet. The injury closely resembled the crack which sometimes occurs at either end of the radius from force similarly applied.

4. *Fracture of Cervical Vertebræ: Extension.* — A young man while doing what is known at a gymnasium as the "giant's swing," at arms-length around a horizontal bar, lost his hold and struck the floor upon his back, beyond the mattress, at a distance of twelve feet, producing instantaneous and complete paralysis of the limbs. The patient breathed comfortably, however, by his diaphragm. Retention of urine was a constant symptom until shortly before death; consciousness was unimpaired during the same period. A depression was felt in the region of the sixth cervical vertebra. Moderate extension was made under ether by Dr. Cabot, during which priapism suddenly ceased and did not reappear. On recovering from ether, the patient expressed himself as feeling easier. Death occurred twenty-four hours after the accident, the respiration becoming labored during the last few hours. There was no autopsy.

5. *Necrosis of Nasal Bones after Injury: Plastic Operation.*— The patient

was a young man. The bridge of his nose had completely disappeared, and an orifice three quarters of an inch in diameter exposed the nasal cavity at this point. Dr. Bigelow filled this with a triangular flap from the forehead. The stitches were removed on the third day, union having taken place, even of the wound in the forehead. Dr. Bigelow remarked upon the importance in plastic operations of making the flap so large and so loose that it will lie in exact apposition with every part of the edges to which it is to be united, even before stitches are introduced. A convenient practical rule in plastic operations, of the nose or eyelid, for example, is to carefully locate the nearest point to which it is safe to bring the incision upon the distal side of the pedicle. When the patient is etherized, the skin is to be punctured at this point with the sharp leg of a pair of compasses; the other leg, being now placed upon the most remote extremity of the wound which is to be filled, is turned around upon the sound temple or forehead, and a second puncture made. This puncture marks the extremity of an adequate flap, so far as its length is concerned. Again, a cicatrix which requires a plastic operation, generally represents a comparatively large wound and also the maximum contraction of which the part is capable. It is therefore useless to dissect up its edges in the hope of further approximating them. For example, the only good operation for an everted lower lid, is by taking a sound flap from the temple.

10. *Epithelial Cancer of Rectum and Anus*, of two years' duration, in a patient seventy-eight years of age. The sphincter was divided by Dr. Bigelow in the hope of relieving the excessive pain of defecation.

H. H. A. Beach, M. D.,
Surgeon to Out-Patients.

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SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, WADSWORTH, AND GAY.]

The principal operations performed during the week ending Friday, January 8th, 1875, were as follows: —

1. Tracheotomy. 2. Paraphimosis. 3. Strangulated hernia. 4. Epithelial cancer. 5. Dislocation of radius and ulna, with probable fracture of the coronoid process. 6. Divulsion of stricture of the urethra. 7. Amputation of thigh. 8. Perineal fistula. 9. Canthoplasty. 10. Hare-lip. 11. Caries of tibia. 12. Removal of condylomata from anus. 13. Ingrowing toe-nail.

1. *Tracheotomy.* — A boy, six years old, had been sick a week with dyspnœa, cough, and hoarseness. When brought to the hospital the patient's circulation was poor; his lips were livid, and he was suffering from imperfectly aerated blood. An inspection of the fauces showed the palate and pharynx lined with a membranous exudation. A little ether was given him on an ordinary sponge without a towel, and tracheotomy performed by Dr. Cheever. As soon as the trachea was opened, a large quantity of softened false membrane was expelled. A moderate-sized tube was fastened in the trachea, and the child placed in the steam-room. He was soon asleep and breathing easily

but in the course of the following twelve hours dyspnœa returned, although the tube was quite clear. He sank and died from suffocation and exhaustion, the air passages below the tube becoming obstructed with false membrane. The disease was considered to be diphtheria.

2. *Paraphimosis.* — The patient was thirty-nine years old, and had had paraphimosis five days. The prepuce was greatly swollen. There was a line of ulceration at the point of constriction, threatening to destroy the glans and prepuce. The tight constricting portion was fully divided, and a cold water dressing applied.

3. *Strangulated Hernia.* — The patient is a young man who has had an inguinal hernia for several years. It has always been partially reducible till about twenty-four hours before his admission to the hospital on the 5th inst. There had been vomiting, pain, and constipation for twelve hours. A large, firm, tense tumor extended from the right internal inguinal ring to the bottom of the scrotum. It was dull on percussion, gave no impulse, and was irreducible. The patient was etherized, and, after a trial of moderate taxis, herniotomy was performed by Dr. Cheever. An oblique incision four inches long was made over the neck of the tumor. The pillars of the external ring were exposed by a careful dissection, and nicked to relieve the constriction which they produced. On opening the sac about twelve ounces of serum ran out, when the contents were found to be a small knuckle of dark-brown intestine enveloped in a large mass of omentum. The latter contained some extravasations, and was firmly adherent to the sac throughout its whole extent. The internal ring having been enlarged with the herniotome, the intestine was returned to the abdominal cavity. The omentum was left in the sac, as it was impossible to detach it. The wound was closed with silk sutures, and a compress and double spica-bandage applied.

4. *Epithelial Cancer.* — Five months ago, the patient, aged sixty, first noticed a "wart" on the right side of her forehead, about two inches above the orbit. It grew till at the time of the operation it was an inch and a half in diameter. The edges were hard and everted, and the base covered with a mass of fungous granulations. Dr. Cheever removed the growth entirely by an elliptical incision. It was not attached to the pericranium, nor were there any glandular complications. The wound was partially closed by silver sutures.

5. *Dislocation of Radius and Ulna, and probable Fracture of the Coronoid Process.* — While exercising in a gymnasium, nine weeks ago, a young man fell from a swing, striking on his right elbow. The arm was bandaged and kept in a straight position, although the physician, called at the time of the accident, diagnosticated a dislocation of the elbow, made extension, and called it reduced. When the patient entered the hospital, rotation was fair, but flexion was very limited, the arm being nearly straight.

He was etherized and the adhesions were thoroughly broken down. The radius was found dislocated backwards and outwards. On flexing the fore-arm to an angle of 45°, the ulna could easily be slipped backwards and forwards, about three quarters of an inch. This motion was attended by true crepitus. Dr. Cheever thought the tip of the coronoid process must be broken off; for, although a very rare injury, yet it would seem the most rational way of explaining the symptoms in this case.

The radius and ulna were reduced, flexed to a right angle, and placed upon an internal angular splint.

6. *Divulsion of Urethral Stricture.* — The patient is sixty years old, and has had a stricture of the urethra thirty years. He has had repeated attacks of retention, for one of which the bladder was tapped per rectum. The stricture is at the junction of the bulbous and membranous portions of the urethra. It has been treated by gradual dilatation, rapid dilatation, or divulsion, with Holt's and Gouley's instruments, and by perineal section; but, owing to his total neglect of the treatment advised, it is now nearly as bad as ever.

Dr. Cheever passed through the constriction a capillary whalebone bougie, which served as a guide to a No. 8 Gouley's tunneled sound. A large silver catheter was then passed into the bladder.[1]

7. *Amputation of the Thigh.* — The amputation was performed for a compound comminuted fracture of the leg. A man, thirty-four years old, was run over by a horse-car a short time before being brought to the hospital. The upper half of the left tibia and fibula was crushed, and the tibia was dislocated backwards. The soft parts as high as the knee were so badly lacerated as to preclude all idea of trying to save the limb. Dr. Thorndike amputated the thigh at the junction of the middle and lower thirds, by the circular method.

At the end of seventy-two hours there was union by the first intention throughout nearly the whole of the superficial part of the wound.

8. *Perineal Fistula.* — A boy, eleven years old, had a calculus the "size of a marble" removed from his bladder, by the lateral operation for lithotomy, seven years ago, in England. The wound never healed entirely till two years ago, when an operation was performed, after which the wound remained closed about six months. A second operation was done a year ago, without success. There is now a fistula on the median line an inch in front of the anus, which admits a No. 10 sound. He retains his urine fairly if he keeps quiet; but on moving about, the urine dribbles constantly from the fistula. He has been treated by tonics, diuretics, etc., and the fistula by various injections, by the solid nitrate of silver, the galvano-cautery and the actual cautery. There is no stone in the bladder at present, and his general condition is good. Dr. Thorndike dissected out the indurated walls of the fistula, and then applied the acid nitrate of mercury to the entire tract.

9. *Canthoplasty.* — The patient is a young man who has had trachomatous affection of the conjunctiva for several years, and this has caused contraction of the lid-opening, with greatly increased curvature of the tarsus. The increased friction of the lids on the globe has produced, and keeps up, cloudiness, and gives rise to calcareous deposit in both corneæ. To relieve the friction, Dr. Wadsworth performed canthoplasty on both eyes. The outer canthus was slit up about a quarter of an inch, the tarso-orbital fascia incised, and the skin and mucous membrane stitched together. It is proposed to remove the calcareous deposit from the corneæ, later.

10. *Hare-lip.* — This was the second attempt to close a single hare-lip. The first operation was done November 27, 1874, by Malgaigne's method, and for some unknown reason it failed. The child is now eleven weeks old, and has

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[1] For a full history of this case, see this Journal for February 5, 1874.

a fissure of the lip, the hard and the soft palate of the right side, and a fissure of the soft and part of the hard palate of the left side. Although the cleft, both in the lip and the palate, is very wide, yet the child nurses the bottle very well by means of a large rubber nipple. Six weeks after the first operation Dr. Gay performed a second in precisely the same manner. The lip was freely dissected from the bone. A narrow strip was then cut from above downwards, on each side of the fissure, and left attached below. The whole incision was closed with interrupted silk sutures and adhesive plaster. Part of the sutures were removed in twenty-four hours, and the remainder in forty-eight hours. Three days after the operation the union was perfect.

GEO. W. GAY, M. D.

LETTER FROM KNOXVILLE, TENNESSEE.

[FROM AN OCCASIONAL CORRESPONDENT.]

MESSRS. EDITORS, — On examining any good map of North America, we will see a long, uninterrupted, elevated belt of territory traversing the States of Pennsylvania, Maryland, and Virginia. Before reaching the thirty-eighth degree of latitude this range of mountains divides; one limb, directed in a more westerly course, is the Cumberland range, and the other a continuation of the main chain. The space between these limbs which lies in the State of Tennessee is known as East Tennessee. The region may be compared to a trough of the sea between two high waves. This section is traversed by lesser elevations or ridges, which run parallel with the high mountains on either side, and may be denominated corrugations. Upon a bird's-eye view one would conceive that this space had been compressed by the higher mountains on the sides, and the surface left with a series of hills and valleys from east to west, or rather southeast and northwest. In this division of the State there are about thirty counties, with a total area of over nine thousand square miles. Knoxville is very near the centre of the valley. The higher portions of the city are nearly one thousand feet above the level of the sea. The mean annual temperature here is about 57°. One degree of variation obtains to every hundred feet over or under one thousand feet. The summer mean at Knoxville is a fraction less than 74°. The winter average is not far from 40°. It is seldom that the mercury sinks below zero. Twenty degrees above is considered cold, and when ten is reached, winter is upon us.

The Holston River, which rises in Virginia, and the French Broad, having its source in North Carolina, unite five miles above Knoxville, and form the Tennessee. Till within five years the Holston retained its name for thirty or forty miles lower down. These streams, with their tributaries, render the country well watered, and along their sides are found alluvial bottoms of greater or less width. Above these bottoms the soil is clayey, with an admixture of rock or small stone. Gravel is seldom found, as will be inferred from the geological formation of the country.

The first settlements were made in 1760, by people from Virginia and the Carolinas, with a sprinkling from Pennsylvania.

These pioneers were hardy and industrious people, and transmitted their good qualities to posterity. They established academies and colleges at once, and made education a prominent measure in the various communities. Some of the earliest physicians were persons of liberal education and high standing in their profession. Two or three received their education in Europe, and all were graduates of a medical college. In subsequent years, bringing us up to 1820 and later, many young men were unable to travel over the wide expanse of country to reach a medical school, and consequently commenced practice with only the advantages of a home education. There are very many at this day practicing medicine who never saw a medical college. Since the close of the late war, great numbers of young men have gone to the Atlantic cities to pursue medical studies, or have patronized the schools of Nashville and Louisville.

The Medical Society of East Tennessee was organized nearly thirty years ago, and, with only an interruption from 1860 to 1870, has been signally flourishing. It is expected that a hospital will be organized soon, as a building has been purchased with ample ground and other conveniences requisite. Such an institution is much needed here, as the fortunes of war and the results of poverty and vice have left great numbers of needy people, who are dependent upon private charity and the aid afforded by benevolent associations temporarily organized.

East Tennessee has always been considered healthy, and, from its mild climate, its altitude, and the broken mountainous surface, we could not expect to find it otherwise. Except upon the widest river bottoms, malarial disease is never encountered. During the damp and chilly months of winter and spring, we find acute pulmonary complaints and rheumatism very prevalent. Typhoid fevers occur very rarely. Every year we see more or less cases which may be classed as typhus mitior. Diseases peculiar to children are of a mild type seldom proving fatal. Scarlet fever has appeared in Knoxville, since the war closed, but once, and then it was very benign. Cholera infantum seldom assumes a severe form. Asiatic cholera visited Knoxville in 1849, 1854, 1866, and 1873. During its last visitation less than forty deaths occurred, and by adopting sanitary measures promptly, the disease was very effectually stamped out. The negroes constitute quite a proportion of our population, and an account of the diseases to which they are liable will afford a theme for some future communication.

KNOXVILLE, TENN., *January* 4, 1875.

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WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending January 16, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: pneumonia, rheumatism, bronchitis, and typhoid fever. Diphtheria and croup are less prevalent.

In the Connecticut Valley: bronchitis, influenza, rheumatism, diphtheria, pneumonia, whooping-cough, and croup. Scarlatina is less prevalent. One physician in Springfield reports meningitis.

In the Midland section: mild bronchitis, severe pneumonia, influenza, rheumatism, whooping-cough, scarlatina, and diphtheria. Erysipelas is reported as "epidemic" in the northern part of Worcester County.

In Middlesex and Essex counties: influenza, bronchitis, scarlatina, rheumatism, pneumonia, and whooping-cough. Measles and diphtheria are subsiding.

In the Metropolitan section (Boston and its suburbs): bronchitis, pneumonia (not fatal), rheumatism (subacute), measles, scarlatina, influenza, and whooping-cough. Diphtheria and tonsillitis appear to be subsiding together.

In the Southeastern counties: mild bronchitis, influenza, pneumonia, rheumatism, whooping-cough, and croup. Scarlatina is less prevalent.

It appears that bronchitis, pneumonia, and rheumatism prevail in all parts; croup and diphtheria are most prevalent in the Connecticut Valley; scarlatina is in the Midland, Northeastern, and Metropolitan sections, its type being generally mild; whooping-cough prevails mostly in the rural sections.

Since last week there has been a decline in the following: measles, diphtheria, and tonsillitis. Bronchitis, influenza, pneumonia, rheumatism, scarlatina, and erysipelas show an increased prevalence. Croup and whooping-cough are the same as at last report. F. W. Draper, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING JANUARY 9, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	632	33
Philadelphia	775,000	292	20
Brooklyn	450,000	244	28
Boston	350,000	167	25
Providence	100,000	35	18
Worcester	50,000	23	24
Lowell	50,000	16	17
Cambridge	44,000	36	47
Fall River	34,200	24	28
Lawrence	33,000	7	11
Springfield	33,000	7	11
Lynn	28,000	16	29
Salem	26,000	6	12

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BABIES' SORE EYES.

BY HENRY W. WILLIAMS, A. M., M. D.,
Professor of Ophthalmology at Harvard University.

THE accoucheur has scarcely begun to congratulate himself on the favorable progress of his case after delivery, when, in many instances, the appearance of ophthalmia in the new-born infant renews his anxieties. The suddenness of the attack, the severity of the symptoms, the delicate state of the mother and child, — making it impossible, in most cases, to have other advice than that of the attending physician, — and the immediate and obvious consequences of his skill or of the want of it; these conditions combine to render such cases of grave importance.

From some cause, this disease has seemed to be more than usually frequent and virulent during the last summer and autumn, and I have been urged to say something in the JOURNAL about it and its management.

No case should be neglected, when there is even a slight discharge from the eyes of young infants; a mild form of conjunctivitis, however, is often met with, marked by slight redness of the lining of the lids and a little mucous secretion, which requires only frequent cleansing of the eyes with tepid water, and the use of simple ointment along the edges of the lids to prevent their adhesion at night; or, at most, the putting into the eyes, three times a day, a few drops of a solution of two grains of alum or four grains of borax in an ounce of water. These are the cases in which nurses think they accomplish such wonders by spirting into the eyes a stream of breast-milk: a waste of valuable material, but a procedure which does no other harm than to render the nurses self-confident, and to lead them to fatal reliance on the same means in cases of the more severe form of disease. This mild inflammation is apparently often caused by strong soap, or other acrid or irritating substances, rubbed into the eyes at the first cleansing of the child; cold and dampness are also causes. The same agencies *may* sometimes induce the more virulent disease which is the subject of this paper; but it is probably most often due to infection of the eyes, during birth, from vaginal or urethral secretions. This is made probable by the limitation of the time within which the first symptoms appear; for if the severer form of disease were often produced by the action of external irritants, it would show itself at various periods, as a result of the continued carelessness of mothers and nurses, whereas it seldom begins later than ten days after birth, usually much sooner.

The form of purulent conjunctivitis known as ophthalmia neonatorum, or ophthalmia of new-born infants, generally begins from the third to the sixth day after birth, a slight red streak on the skin along the middle of the upper lid being sometimes observed as a premonitory symptom before any discharge from the eyes is noticed. If the lid is drawn open, its lining is seen to be red and velvety, and a slight mucous secretion is found. In a few hours the lids may become enormously swollen and livid, the upper lid sometimes completely overlapping the lower and resting upon the cheek. The conjunctiva lining the lid becomes greatly tumefied and its surface granulated, and inspection of the eye becomes impossible without the aid of an elevator. When by the help of this instrument the eye is seen, the conjunctiva of the eyeball is found to be in a condition similar to that of the inside of the lids. The secretion from the conjunctiva rapidly assumes a purulent character, and the quantity is very large, a teaspoonful perhaps accumulating in an hour's time. If this condition is not soon changed for the better, the defective nutrition, the pressure of the swollen lids, and maceration in the unhealthy secretion cause haziness of the cornea, and then ulceration and perforation ; followed usually by hernia of the iris and perhaps loss of vision.

Two opposite and equally fatal errors of treatment are unhappily prevalent. On the one hand, nurses frequently regard babies' sore eyes as a slight matter, and neglect to call the attention of the physician to the early symptoms, relying on the breast-milk as an infallible cure. Then, when the increased swelling of the lids makes the use of this means impossible, they are too often ready to apply an alum curd or a poultice, "to draw the inflammation," thus greatly increasing the danger of ulceration or sloughing of the cornea. On the other hand, the physician, unfamiliar with these cases, and alarmed at the intensity and duration of the symptoms, feels that the latter must be subdued by active treatment, and may employ caustics or stimulants adapted to disease of the same tissues in adults, but not well borne by the infantile subject.

Of all curative means the *most important is constant cleansing of the eyes.* This should be repeated according to the amount of the discharge, every two hours, every hour, or even every half-hour during the day, and once or twice at least at night, until the diminished secretion and lessened thickness of the lids allow of a less frequent repetition. The lids may be opened with the fingers of both hands by the nurse, whilst another person pours in tepid water from a spoon or sponge. If the lids are greatly swollen this becomes impossible, and a syringe must be used, which should be perfectly clean, and have a smooth and not too sharp point. Its nozzle is to be gently passed under the edge of the upper lid, and the contents injected so as thoroughly to wash out the palpebral cavity. This must be done often, as already advised, for it must be borne in mind that the continuous soaking of the cornea in the copious purulent discharge seems to soften its texture and prepare the way for ulceration. Special care should be taken, in cold weather, to make the water so warm that the child may have no shock, and thus to avoid its crying, as the thickened lids are often everted when the child cries. Should this eversion occur, the lids are to be replaced as gently as possible with the fingers. A little simple ointment should be used along the edges of the lids, when the child sleeps, to prevent agglutination and give opportunity for the free escape of the discharges; as also to protect the external skin from excoriation.

If these means are gently used, the child is not much disturbed, and soon falls asleep after them. These measures for securing cleanliness appear to be sufficient for the cure of many even severe cases; but I think it safer, where the symptoms are formidable, to alternate with the injections of water the use of a mild astringent, as, for instance, a solution of five grains of alum in an ounce of water. This should be applied in the same way, and should be warmed if necessary. A solution of crystals of borax, of the same strength, may also be used. These are the best collyria for these cases; but a solution of sulphate of zinc, a fourth or a half of a grain in an ounce of water, may sometimes be serviceable. Any *strong* astringent solutions, or *any* solutions of nitrate of silver, acetate of lead, or corrosive sublimate; the introduction beneath the lids of mercurial or nitrate of silver ointments; the application of the crayon of nitrate of silver, pure or mitigated with nitrate of potash, or of the crayon of sulphate of copper: all these *should be avoided.* Cases may perhaps do well where these have been employed, especially if great care has at the same time been taken as regards cleanliness of the eyes; but they are dangerous remedies. Moreover, they sometimes evidently cause agonizing pain; and there is great risk that the mother, unable to bear the dreadful sight of her infant's sufferings, may refuse, unless the physician has established the strongest hold upon her confidence, to continue so harsh a treatment, and may place the child probably in less skillful hands, though blaming the doctor if the eyes are lost.

The condition of the cornea must be closely watched, and the lids must be raised for this purpose, by means of an elevator. If unprovided with such an instrument, the physician may form one by bending the end of the handle of a spoon, with which he can draw up the lid; or he may perhaps effect his object by using a broad hair-pin, bending the rounded end in the same way. Any central cloudiness or ulceration of the cornea would indicate the use of a drop of a solution of sulphate of atropia, two grains to an ounce of water, put into the eye once daily, or oftener, and continued while any cloudiness remains. Should perforation of the cornea take place, hernia of the iris may perhaps be prevented by its use, and if the opening is small and is promptly healed, good vision may be preserved. The physician should not relax his vigilance until the symptoms are much improved, as the cornea sometimes yields unexpectedly, under the effects of the long continuance of the disease, even in its later stages and after its force is apparently spent.

Every pains should be taken to secure good nutrition for the child. Without exposing it to cold, the air of the room should be renewed. The light should be moderated, so that the child may open its lids when they are not too much swollen, and thus permit the discharge of the secretions. The child will not open its eyes if the room is too light or too dark.

The prognosis of this affection is favorable, even in the severest cases, if treated promptly and diligently from the outset; and I once more urge use of the simpler remedies as unquestionably the best. But if ulceration or a sloughy condition of the cornea is already present when treatment is begun, the result is often unfavorable, whatever means may be employed. Yet we need not wholly despair even where these conditions exist, as the eye will sometimes recover with at least partial vision.

A most important part of the physician's duty is to take every precaution against contagion. A minute particle of the morbid secretion may convey the disease to the eye of a healthy person. The attendant should therefore direct the thorough cleansing or destruction of all articles soiled with the purulent discharge; great care in using the syringe, so that no drop of the injection may be thrown back from beneath the lids into the eye of the nurse; and immediate washing of the hands whenever they have touched the sore eyes or anything contaminated by them.

AFFECTIONS OF THE SEBACEOUS GLANDS.

BY EDWARD WIGGLESWORTH, JR., M. D.

The affections of the sebaceous glands, as far at least as frequency of occurrence is concerned, play in dermatology a rôle second only to that of eczema. The vernix caseosa of the fœtus, the crusta lactea of the infant, the "maturating pimples" of youth, and the seborrhœa of the scalp so frequently causing loss of hair during early maturity, are all merely manifestations of varying action on the part of the sebaceous glands. The "public evil comes home to each" practitioner of medicine, in the form of acne, more common in America than in Europe, in the lean and nervous than in the stout and placid, in the North than in the South, in variable than in equable climates, and also especially prevalent in manufacturing districts; acne, the only perfect prophylactic against which is a fatty liver, and whose only permanent cure is senility. Now what is necessary for the proper treatment of the quantitative excess and the qualitative alteration of the secretion of these glands, and their inflammatory sequelæ? Is it an accurate acquaintance with the pathologico-histological anatomy of the material involved, and an exact knowledge of the physiological and chemical forces to be brought to bear? By no means! Buckingham and Trousseau have given the hint and the axiom as regards the therapy of such cases. The former says, "The country girl washes her face with soap, and does not have acne; the city girl abstains from the use of soap, and does." The latter declares, "Le remède n'est rien, la médication est tout et le mode d'administration principalement quelque chose de sacramental." In other words, Buckingham tells us what to use, and Trousseau the need of the proper use of it; for in the treatment of skin diseases the mechanical forces are often as potent as the chemical ones.

A very common affection, and one particularly distressing to the patient on account of the personal disfigurement involved, is comedones, the so-called "black-heads" or "skin-worms," in the language of quack advertisements. These occur especially upon the face and neck, also upon the breast and back, more particularly upon their upper parts, though they may occur wherever external influences tend to cause the obstruction of the sebaceous and hair follicles, as in the case of workers in metals, printer's ink, tar, etc. The disease consists in an over-accumulation of the natural secretion, with perhaps a deficiency in its more fluid constituents, with epithelial and gland cells, fat drops, embryonic hairs, often acari folliculorum, and sometimes crystals of cholestearine. This plugging of the follicles may be near their exits and quite superficial, may extend throughout their whole length, or may be deep-seated, in which latter case it tends to result in the formation of acne pustules. Where the skin is thick, the hair follicles long, and the sebaceous glands deep-seated, the heaping-up is apt to occur at the lower and closed end of the follicle. The black color of the free extremity of the sebaceous plug is due simply to dirt, the dust of the air being caught and retained by the oily and exposed surface of the plug.

The therapy consists in removing the plug and restoring the glands to their normal conditions. Constitutional treatment is also frequently of service, as comedones seem to be more frequent when phthisis, scrofula, or other general processes interfering with nutrition are present. The inspissated plugs are best removed by placing a watch-key over each of them in succession, and then pressing steadily and firmly down. The plug comes out like a worm (whence the common name of the disease), pushing itself upwards into the bore of the tube of the key; it often springs out with a jerk perceptible by both patient and physician. It may be pressed out with the two thumb-nails or with a spatula. The key should have a large bore to admit of the entrance of the plug; the walls of the tube should be thick and smooth, as in new keys, to avoid cutting through the skin as with a punch, and the key should be placed upon the skin exactly perpendicularly, to prevent any cutting by one of the angular edges. It does not do at first to persevere in the use of the key if the reaction of the skin leaves a condition of things worse than that previous to treatment, as may sometimes be the case with skins predisposed to urticaria. As a rule the slight reaction soon disappears, therefore the operation should be performed at bed-time to give the skin an opportunity of regaining its normal condition before it is seen by others than the patient himself. Nor should many comedones be thus removed at the same time from a limited district of skin, lest the reaction should be too intense. They should be extracted from different parts, and the complete removal of all of them may thus require a considerable number of days. The comedones are not always extruded by the first application of the key. In this case the face may be exposed to the steam of hot water for a time before using the key; or an attempt made a few days subsequently, after the additional treatment to be described, will often prove successful; or a troublesome but almost unfailing plan may be employed, which consists in inserting the point of a cambric needle into the aperture of the follicle to the depth of a hair's breadth, and moving it round, but not so as to draw blood. This dilates the follicle, besides removing the epithelium, or whatever closes the orifice and prevents the removal of the comedo, which then yields to the re-application of the watch-key. The comedones, if not removed, act as foreign bodies, like splinters of wood or needle-points, and cause an inflammation of the skin which results usually in acne-pustules. Coincidently with the commencement of this treatment, and without waiting until all the comedones have been removed, we employ local applications.

As the best remedies are always the cheapest, so also the cheapest remedies are often the best; and the application first needed is that of soap, — common soft soap, " such as is used in washing floors," " three cents a quart at any grocer's," for skins that will bear it; for thinner skins, common yellow bar soap may be used, or for very delicate ones white castile soap. Skins too delicate to bear castile soap are, as the rule, too thin to allow of the formation of comedones, and skins too dry to bear it are rarely troubled by excessive formation of sebaceous material. When such cases do occur, for instance in delicate women, sponging the face with cologne water should be substituted. Our object is of course to soften and remove the epithelium, dissolve any still remaining sebum, and wash out those follicles already emptied by means of the key. The chemical agents which dissolve fats are the ethereal oils, ethers, chloroform and alcohol, and the alkalies. The oils smell and are often too stimulating; ether, chloroform, and even alcohol evaporate too readily and are inferior to the alkalies, though of service alone and of still more use in combination with other remedies. Of the alkalies, lime and ammonia are not easy of application, or are too caustic. Soda and potassa are present in soaps, soda in the hard and potassa in the soft soaps. Soaps give us the cheapest, the most readily obtainable, the most easily applied, and the most efficacious applications. Moreover, the mildness or severity of treatment required is most easily gauged by the use of soaps. Chemically, the soft soaps possess more solvent power than the hard; mechanically, we can increase the action of soap by rubbing it in rather than spreading it on, or by spreading it as a plaster on cloth and applying it thus rather than spreading it upon the skin. Or by the combination of these two the effect is still more increased. German soft soap (sapo viridis) is a more elegant application than common soft soap. The finest preparation of all is the German soft soap (two ounces) dissolved in alcohol (one ounce) and allowed to digest for twenty-four hours, then strained and, if wished, flavored. The alcohol should be pure rectified spirit. This spirits of soap is best applied with white flannel, and rubbed into the skin either alone or with the addition of warm water, as the alcohol evaporates and the soap hardens. When merely washing the skin is not sufficient, the soap should be rubbed on and the foam allowed to stay all night. After a week or two of the use of the watch-key, followed by that of soap, the key may generally be dispensed with, the face merely washed with soap three times daily, and white precipitate ointment applied at night with the finger, left on all night, and washed off with soap in the morning. If at any time the skin becomes too dry, irritated, painful, and furfuraceous from the use of soap, this may be temporarily omitted, while the ointment is continued. Or the diachylon ointment of Hebra may be substituted. The former gives us the action of mercury upon the glands; the latter acts as an astringent. Both remedies supply to the skin proper the fat removed from it by the alkali, while at the same time they soften the hardened sebum in the follicles. The action of mercury may also be obtained by using two grains of corrosive sublimate to an ounce of glycerine, alone or with a little rose-water added. Glycerine, however, is a base and not a pure fat; and although like the fixed oils it does not dry up, it is sufficiently hygroscopic to withdraw water from the skin, and is to many delicate skins a strong irritant.

When stronger applications are necessary, sulphur soap may be used in the same way as common soap; or precipitated sulphur may be combined with carbonate of potassa, glycerine, and alcohol, and, for mild cases, cherry laurel water, for more severe ones, sulphuric ether, of all equal parts, and this mixture be spread upon the skin with a camel's-hair brush or rubbed gently in at night and washed off in the morning with bran water, barley water, or water containing a little mucilage. Frequently after the second application and usually after the third, the skin becomes somewhat painful and reddened, possibly a little swollen, tightly drawn, and covered with fine scales. We have then attained our object, which is to set free the exits of the follicles, removing by desquamation the epithelial débris obstructing their orifices, and therefore the lotion may now for two or three nights be omitted and its place supplied by any simple ointment, an astringent one preferably, to remove the feeling of tension in the skin, and, by taking the place of the exfoliated epidermis, to protect the new cells. Such ointments should not merely be rubbed in, but also applied on cloths like plasters. It was a saying of Hebra's that an ointment thus applied was worth three times as much as when merely rubbed in and left to be removed by the first thing with which it came in contact, and in the mean time to become a receptacle for dust, dirt, spores, etc. These ointments, spread thickly, should be allowed to remain on the skin all night, and washed off with soap and water in the morning. A general direction always to employ soap with every act of ablution should also be given. There is, in this connection, a practical point to be borne in mind. However valuable a mercurial ointment or a sulphur paste may be separately, they should never be used coincidently. The employment of one contra-indicates that of the other, especially upon parts exposed to view, as the face; for the chemical combination of the sulphur with the mercury causes a black deposit upon the skin and in the orifices of the follicles, producing much the appearance of the very disease which is under treatment. Sulphur combines in the same way with the ingredients of other lotions which might be employed, such as lead water.

Comedones are usually only a local affection. When constitutional treatment is required it is usually on account of the anæmia or general debility of the patient, and this is often due to a scrofulous or phthisical habitus which interferes with the nutritive processes and amongst others with those of the sebaceous glands. Tonics are therefore called for, especially the nutritive oils. Olive oil, half an ounce after meals, is nutritive and slightly laxative. The animal oils are perhaps preferable to the vegetable. Cod-liver oil may be freely given, alone or with a little glycerine. Half an ounce of glycerine added to a six-ounce mixture in case of very many medicines tends to conceal any disagreeable taste. This applies particularly to the oils, and especially if a few drops of oil of cinnamon are added and the mixture well rubbed together. Some writers also hold that the internal administration of oil exercises a local effect upon the sebaceous glands, and increases in their secreted products the amount of olein present, thus preventing the inspissation of the sebum, rendering it less like an irritating foreign body, and aiding its elimination from the follicles. They base their theory upon such facts, as the rarity of comedones in fat people; the immunity from this disease of patients with oily skins, as, for example, old drinkers, or of patients with fatty livers; and upon the results of such experiments as that of Boussingault, who found that in the case of a duck fed exclusively upon butter for a fortnight, the butter "oozed from all the pores of the body." But such views certainly lack verification. Such writers recommend also instead of oils the exhibition of glycerine, one drachm three times daily, in the belief that a base is thus supplied which, by uniting with crystals of stearine and margarine in the sebum, renders them fluid and aids their elimination. But here, certainly, the direct external application of the glycerine would seem to possess superior advantages.

In all cases of disease, and especially in diseases of the skin, it is to be borne in mind that the physician is not a necromancer, distributing specific magical antidotes to "poisonous humors," but a public educator to supply instruction in a much neglected but most important branch of knowledge, namely, that of hygienic laws, and his sphere of practical usefulness is co-extensive with his inculcation and dissemination of a proper comprehension of these laws and of the necessity for their observance. The habits of the patient as regards bathing, exercise, sleep, diet, and clothing; the condition of his home in respect to warmth, light, and ventilation; his habits in regard to the use of stimulants, narcotics, etc.; even his social and mental environment: all these require the careful consideration of the conscientiously thorough medical practitioner.

(*To be concluded.*)

RECENT PROGRESS IN PHYSIOLOGY.[1]

BY H. P. BOWDITCH, M. D.

VASO-MOTOR CENTRES.

FROM the fact that nervous centres presiding over the movements of the different voluntary muscles of the body are distributed through the length of the spinal cord, it is natural to suppose that the vaso-motor nerves arise from similarly situated centres. This, however, is not the opinion of the majority of physiologists at the present day. The experiments of Owsjannikow[2] on rabbits seemed conclusive on this point. This observer found that a section through the medulla oblongata one or two m. m. below the tubercula quadrigemina did not produce vascular paralysis, as indicated by a manometer registering the arterial blood-tension. Any lower section, however, did produce vascular paralysis, and the lower the section the more complete was the paralysis, until a point four or five m. m. above the calamus scriptorius was reached. After the medulla had been divided at this point, not only did lower sections fail to produce additional paralysis, but the irritation of sensitive nerves did not cause a reflex contraction of the blood-vessels and consequent rise of blood-tension. Owsjannikow concluded, therefore, that the vaso-motor centre lies in a portion of the medulla oblongata whose upper and lower limits are those above indicated, and whose extent from above downward is in rabbits about four m. m. These observations have been confirmed by Dittmar,[1] who, by improved methods of making the sections, has been able to determine the limits of the vaso-motor centre with great accuracy, and by partial sections of the cervical cord has proved that both the centripetal and the centrifugal fibres, which are concerned in the reflex contraction of blood-vessels, run in the lateral columns of the spinal cord.

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[1] Concluded from page 70.

[2] Ludwig's Arbeiten, 1871, page 21.

On the other hand, Vulpian [2] reports many observations which seem to prove that certain of the vaso-motor nerves do not have their origin exclusively in the medulla oblongata. He finds, for instance, that after section of the cervical cord the temperature of the posterior limbs rises, and that a subsequent section of one of the sciatic nerves causes a still further rise in the corresponding limb, indicating the presence of tonic vaso-motor centres in the cord below the cervical region. He also finds that, when the brain and upper part of the cord of a frog have been destroyed, a reflex vascular dilatation in the web of the foot may be produced by the application of an irritating substance to the web under observation. That this dilatation is due to a reflex action through the cord is evident from the fact that it does not occur after section of the sciatic nerve. He also shows that in a dog, curarized and kept alive by artificial respiration, a fall of temperature in the the foot may be produced by irritation of the central end of the opposite sciatic nerve, the cord being divided in the dorsal region. On the strength of these observations, Vulpian concludes that, though the medulla oblongata exercises a powerful control over all the vaso-motor nerves of the body, it is not to be regarded as the exclusive seat of tonic and reflex vaso-motor centres. On the contrary, these centres, like those which preside over coördinated muscular movements, are distributed through the spinal cord.

A reconciliation of these different views is probably to be sought in the fact that Vulpian's conclusions are drawn from observations on the condition of the cutaneous blood-vessels as manifested by changes of temperature, while those of Owsjannikow and Dittmar are based upon determinations of the blood-tension which is affected by the condition of the blood-vessels generally, throughout the body.

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[1] Ludwig's Arbeiten, 1873, page 103.

[2] Op. cit., Lectures 7 and 8.

In this connection the observations of Schlesinger[1] are of interest. This observer, experimenting on rabbits curarized and kept alive by artificial respiration, finds that section of the cervical cord does not prevent a reflex rise of blood-tension as the result of irritation of a sensitive nerve, provided that the animal is poisoned with strychnia, though without this poison the reflex phenomenon does not manifest itself. Now, the known action of strychnia being to increase the irritability of the centres of muscular movement lying in the spinal cord, the conclusion seems probable that vaso-motor centres also lie in this region, but that it is only when their irritability is increased by strychnia that these centres can, through stimulation of sensitive nerves, be brought into a sufficient degree of activity to produce any perceptible change in the blood-tension.

Budge, also, in his report of experiments showing that irritation of the crura cerebri causes a rise of blood-tension,[2] expresses the opinion that this effect is due to a reflex stimulation of vaso-motor centres in the spinal cord, through sensitive fibres lying in the crura cerebri.

With regard to the situation of the "vaso-dilator," as distinguished from "vaso-constrictor" centres, there is little that can be stated with positiveness. Only in the case of the nervi erigentes has a definite "vaso-dilator" centre been demonstrated. This is to be found, according to Goltz,[3] in the lumbar region of the spinal cord, the proof being that in dogs, after division of the cord between the dorsal and lumbar regions, friction of the glans penis causes an erection, while after destruction of the lumbar cord no such reflex effect can be produced. A strong irritation of the sciatic nerve produces an inhibitory effect upon this "vaso-dilator" centre, so that during the continuance of the irritation, friction of the glans penis remains without effect. This centre can also be stimulated and inhibited by nerve-fibres coming to it from above, as is proved by the observations of Eckhard[4] that the irritation of certain parts of the brain will produce an erection, and by the fact that section of the dorsal cord favors the production of an erection by peripheric irritation, as, for example, by friction of the glans penis.

VASO-MOTOR NERVES OF LUNGS.

Recent observations of Badoud[5] seem to show that the blood-vessels of the lungs are kept in a state of very moderate tonic contraction under the influence of vaso-motor nerves. This observer, working under Fick's directions, measured the blood-tension in the right ventricle of dogs by means of a glass tube introduced through the jugular vein. The tension in the right ventricle during the systole is, of course, the maximum tension which can prevail in the pulmonary artery. The tension in the carotid artery was measured at the same time by a spring manometer. Section of the cervical cord was found to cause in the pulmonary circulation a considerable, and in the systemic circulation a much greater diminution of blood-tension. This shows that the normal tonicity of the pulmonary arteries is less than that which prevails in the systemic circulation. Irritation of the cord caused a rise of blood-tension in both the pulmonary and the systemic circulation, the rise in the former system of vessels being so great that it could not be regarded as a secondary effect of a contraction of the systemic arteries forcing the blood back upon the lungs, but indicating rather the existence of vaso-motor nerves in the pulmonary vessels themselves.

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[1] Wiener medicinische Jahrbücher, 1874, i., page 1.

[2] Pflüger's Archiv, vi., page 303.

[3] Pflüger's Archiv, viii., page 460.

[4] Beiträge zur Anatomie und Physiologie, vii., page 69.

[5] Ueber den Einfluss des Hirns auf den Druck in der Lungenarterie. Würzburg. 1874.

THE UTILIZATION OF SEWAGE.[1]

Translated from La Santé Publique, November 1, 1874.

BY CHARLES F. FOLSOM, M. D.

In 1869, from five to six thousand cubic metres of sewage were freely and gratuitously given away to farmers. The peninsula of Gennevilliers, a gravelly plain of four thousand acres bounded by a double bend of the Seine, hitherto barren and almost uncultivated, has been transformed by this means.

An increase in the tenantable value of the land followed at once, houses were built, and the village Grésillons sprang up, without the slightest trace of influences injurious to health having been observed in either summer or winter.

In spite of the delay caused by the war in carrying out this great sanitary work, powerful engines now supply eighty thousand cubic metres of sewage daily to the sandy plain. In order to facilitate the experiments, the city of Paris furnishes the sewage gratuitously to the land-owners and keeps a model-farm for instruction in its use. Those who get the sewage devote themselves to kitchen-gardening; and a dry, scorching waste has been changed into luxuriant fields. Early vegetables thrive better there than in other places, on account of the higher temperature of the water. In place of an annual expense per acre of six hundred and fifty francs for irrigation and seven hundred and fifty francs for manure, the cost of sewage irrigation is almost nothing. Stone sewers and pipes underground distribute the fertilizing fluid, and a natural slope in the surface of the land will often serve for its more ready discharge. Trenches connected by a trough running at right angles to them conduct the sewage to any spot desired. This is accomplished by placing one end of the trough in communication with the main sewer by means of a wooden sluice-gate, which can be opened and shut at pleasure.

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[1] Les Eaux de la Seine: Assainissement et Fertilisation par les Eaux d'égouts. P. GARNIER.

The yearly profit in farming has been increased from two hundred and fifty to two thousand francs per acre. Add the progressive increase in the value of the land, and it will be seen that it has been a real fortune to the lucky land-owners of Gennevilliers. The gain would be no less for Paris, if all its sewage and excrement were utilized in this way; that is, if its solid filth, estimated at one thousand six hundred and forty cubic metres a day, fell directly into sewers, as in London, Brussels, Vienna, and other capitals, thereby enriching the sewage. Collected in nearly two hundred thousand movable buckets and large cesspools, as in Paris, it forms just so many foci of ill health in all the houses, apart from the nuisance resulting from its removal and the processes of drying and pulverizing. Such a happy change in garden culture in the vicinity of Paris would not fail, through competition and accessibility to markets, to reduce the prices of fruits and vegetables, and so contribute to the public welfare. But these pecuniary considerations are only secondary in a matter of so great sanitary importance. Whatever is gained in salubrity represents a considerable material gain in diminishing disease, loss of time and labor, and death. It is, then, an indirect but unfailing means of increasing the public prosperity.

Unfortunately this is only an experiment. The greatest part of our sewage is still lost for fertilizing purposes, and still pollutes the waters of the Seine. It has been given to any who wanted it, and the considerable expenditure has not in any way been reimbursed to the city. The perviousness of the soil of Gennevilliers, which readily absorbs all the liquids spread over its surface, will necessarily be exhausted at some more or less remote time; and then it will be necessary to resort to deep drainage to prevent the emanations from constituting another source of pestilence, or still other measures must be adopted.

The thing to do, therefore, is to speedily convey our sewage by canals to all the light, sandy soils below Paris, to fertilize them and to purify the waters of the river. The feasibility of the plan has been proved, and it only remains to follow it up. All intelligent land-owners and farmers are already interested, as the increase in value of land which will ensue will be a source of great profit to them. The material will not fail; for, estimating that one hundred and twenty-five people are sufficient for one acre, the sewers of Paris alone, with its two million inhabitants, would fertilize sixteen thousand acres. And, as it has been shown that instead of loss there is gain to the community in increase of crops, in getting rid of foul emanations, and in general comfort, there is no reason for hesitating, there is no danger to fear, there are only advantages to be gained.

This example of Paris should not be lost to the provincial cities. It is important in a sanitary point of view that their filth should be all collected and utilized, especially where there are extensive dry fields in their vicinity. Light, pervious, sandy soils are best suited for sewage irrigation. It is especially for the interest of manufacturing cities to use as a fertilizing agent the refuse, particularly that from privies, which is thrown into water-courses, polluting rivers and giving rise to epidemics. No town, manufactory, farm, or house can afford to be without its means of collecting and utilizing its sewage; and that negligence is inexcusable which allows such a nuisance to increase until an epidemic appears or the law compels interference. For money spent in sanatory works is returned a hundred fold in the welfare of the people.

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PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

[REPORTED FOR THE JOURNAL.]

NOVEMBER 14, 1874.— DR. MINOT, the President, in the chair.

Glandular Hyperplasia of the Uterine Mucous Membrane. — DR. LYMAN reported the case of a patient, who, a year ago, began to flow very badly, and was supposed to have fibrous tumor of the uterus. Six weeks later, the hæmorrhage recurred. There was a hard mass above the pelvic bones. The examination was moderate, the patient being much exhausted from loss of blood. She had ergot and was kept perfectly quiet. The flowing ceased; she went on well and gained strength. A week ago there was hæmorrhage again. Dr. Lyman introduced a couple of tents, and the next morning passed in the placental forceps, but got nothing. There was general enlargement of the uterus from endometritis. With a curette, disorganized and disintegrated masses of hypertrophied mucous membrane were removed from the inner surface of the uterus. The hæmorrhage ceased. The future chances of the patient are good, but she is liable to a recurrence of the disease.

DR. FITZ, who had examined the specimen, described it as a glandular hyperplasia. There was increased thickness and vascularity; the follicles were increased in depth and there was a proliferation of cells. This is a condition somewhat similar to adenoma of the mucous membrane of the rectum.

Cephalhæmatoma. — DR. FIFIELD remarked that he had always been in the habit, as had his father before him, of treating bloody tumors of the scalp with the lancet, and no harm had come from this mode. Some time ago he punctured one of these tumors with the aspirator, but in consequence of an accident to the instrument, he finished the operation with the knife, and in this case also with successful issue.

Placental Forceps. — DR. ARNOLD exhibited Loomis's placental forceps and explained the method of using the instrument. He reported a case in which he had employed this means with satisfaction.

DR. FIFIELD said, with reference to removing placental masses, he never could do anything with the placental forceps, but had always succeeded by the method taught him by Dr. Miller, namely, to put the patient on her back with her feet in chairs, then to place one hand upon the hypogastrium, and with the index finger of the other hand to hook down the uterus. Having on one occasion passed the forceps through a long, narrow os, he was afraid to withdraw them in position, convinced that by so doing he should split the cervix. In this case, there had been no show from May till August, then nothing till the last week in October, when he saw the patient after a hæmorrhage of four or five days. He extracted a placental mass having a central cavity which held a fœtus of six weeks' growth. The question then was whether an intercurrent hæmorrhage marked the point of death of the fœtus. In this case apparently it did not do so.

A Case of Face Presentation. — DR. FIFIELD also reported a case of face presentation which he had seen in consultation with Dr. Blanchard, of Neponset. The lips, greatly swollen, were protruding, trumpet-shaped, from the vulva. He had never before seen such a full, fair face presentation. Delivery was easily effected by forceps.

A Novel Expedient in a Difficult Labor. — DR. COTTING, to illustrate what a quick-witted man may do in an emergency, gave the account of a sea-captain who was crossing the Atlantic with a load of immigrants, one of whom was a woman in labor. At the end of the first day he consulted his medical library without getting any satisfactory information. At the end of the second day the woman was getting exhausted, the pains were diminishing, the scalp protruding, " everything blocked up," general condition of things deplorable. Appealed to in this emergency, the captain placed the woman on her side, flexed the exposed thigh forcibly upon the abdomen, placed his knee against the lower end of the sacrum, at the same time telling her to strain away for once and all, which being done, the child was immediately born.

Statistics of Births in Massachusetts. — DR. DRAPER, who said that he had been recently looking up the statistics of births in Massachusetts, gave the following as among the results of his investigations. Most children have been born in the latter half of the year, and the majority of these in the last quarter. In the last twenty-five years, the period included in the examination, the proportion of males to females born has been as 106 to 105. The births of children of American parentage have decreased from 63.02 per cent. in 1849 to 39.98 per cent. in 1873; the births of children of foreign parentage have increased from 35.96 per cent. in 1849 to 48.24 per cent. in 1873; while those of mixed parentage, one parent being foreign and the other American, have increased during the same period from 1.02 per cent. to 11.78 per cent. Still-born males have been greatly in excess of the females. Of plural births, the proportion is constant, 1 to 100. In 1873 there were six cases of triplets.

Dr. Chadwick asked if the customs with regard to marriages had anything to do with the time of births. In Vienna the effect of the Carnival is very marked nine months later.

Dr. Draper said the greatest number of marriages in Massachusetts is at Thanksgiving time, in November, while the smallest number is in March.

Abnormal Condition of the Vagina. — Dr. Chadwick reported a case of flooding from mucous polyp in the cervix uteri, in which he found the vagina blown out like a balloon. A year ago he saw the same condition in a woman who had miscarried. The vaginal wall was firm and the rugæ were gone. He asked for an explanation. The condition disappeared in a day or two.

Dr. Sinclair said the nearest resemblance to anything of this sort he had seen had been in cases where the vagina had been distended with air; but he could not say that in these the rugæ had disappeared.

Amputation of Cervix Uteri with Serious Consequences. — Dr. Lyman reported the case of a patient at the City Hospital who had her cervix uteri amputated. Not doubting that such an operation may be sometimes useful, although he had never had occasion to perform it, he wished to say a word of caution with regard to amputating too high up. In the present case, the section had been made close up to the reflection of the vagina, and had apparently wounded the circular artery, as the woman continues to have a hæmorrhage not yet under control. In some cases of high amputation, the écraseur has included the bladder, which has thus been opened.

Dr. Chadwick said that Dr. Emmet, of New York, whom he had recently seen, informed him that he had found incision through the posterior lip to answer all the purposes of amputation.

A Case of Blighted Ovum. — Dr. Arnold reported a case related to him by Dr. Garceau, and showed the specimen.

Mrs. T., aged thirty-five years, has borne four children, the youngest child being two and a half years of age. The patient is healthy, even robust. Catamenia have been absent eleven months. After the amenorrhœa had continued nine months, she consulted Dr. Garceau. There was no unusual abdominal enlargement. The general health remained good. Without vaginal examination, Dr. Garceau advised her to wait. Subsequently a vaginal examination was made, the os uteri was found to be soft and patulous, and having the feeling of an impregnated uterus. The patient could not be persuaded that she was pregnant, as she had had none of the symptoms, except the suppression of the menses. She had lived with her husband during the whole time. As her health was perfectly good she was again advised to wait.

At four o'clock in the morning of the 7th of November, 1874, eleven months from her last menstrual flow, Dr. Garceau found the patient extremely weak and blanched from loss of blood. According to the account obtained, she had begun to flow at ten o'clock the previous evening, and being sure she was not pregnant, she suffered the bleeding to go on until the bed and clothing and abundance of cloths had been saturated, and until from loss of blood she was completely blanched and was alarmingly weak. Vaginal examination discovered a mass protruding from the os. Unable to dislodge the substance without instrumental aid, Dr. Garceau sent for forceps. In a short time, however, the os had become so dilated that when the forceps came the mass was easily extracted.

The uterus contracted well, and there was no further hæmorrhage. The patient rallied speedily and made a good recovery.

The mass proved to be an undeveloped ovum. The whole growth was of the size of a child's head; it contained about a pint or more of liquor amnii. The placenta, of the size of one at six months in the normal state, presented the anatomical structure of placentæ, but felt more dense and firm. Attached to this was a rudimentary cord, about two inches in length, to which was appended an almost microscopical fœtus.

Dr. Fitz said that placental tufts, as seen under the microscope, could not be confounded with other uterine structures, and if found in this specimen would leave no doubt as to its character.

Dr. Fifield asked how much such masses resemble "fleshy moles," and to what extent these are the result of impregnation.

Dr. Fitz said fleshy moles often contain coagulated blood between the membranous layers.

Dr. Jackson said of the fleshy moles which he had seen that they very generally presented sufficient evidence of being ova. The external surface of the specimen shown by Dr. Arnold was very characteristic of the rough condition generally found on the maternal surface of long-retained placental masses. He referred to a uterine cast thrown off after labor and consequently of large size, representing almost the entire cavity of the uterus. There was no question of its being a true slough. We know, Dr. Jackson remarked, that the inner surface of the bladder will slough off, and Liston once correctly diagnosticated this condition. Dr. John Homans had reported a case of sloughing of the lining of the urethra in a patient with gonorrhœa. There was no doubt in this case also that it was a true slough. Its structure was perfectly defined; there was no appearance whatever of false membrane. At the museum at Heidelberg is exhibited the larger portion of a man's stomach, which the patient vomited during life. He had swallowed sulphuric acid. Dr. Jackson had seen the specimens, which were the portion of stomach vomited, and the fragments remaining about the pyloric and cardiac orifices.

Dr. Fifield remarked that a number of cases of sloughing of the bladder are reported in the Transactions of the London Obstetrical Society.

A Case of Bifid Uterus. — Dr. Hodgdon reported the case of a woman who recently died under his care. He was first called to her a week before her death, to prescribe for a diarrhœa. She was twenty-four years of age and had been married a year. She had had cough since the age of fourteen. She never had even a symptom of menstruation. On examination, Dr. Hodgdon found a complete septum across the vagina, and back of this he felt something like an os uteri.

Dr. Fitz, who had made the autopsy, showed the specimen. It was a rare bifid uterus. The smooth vagina formed a short cul-de-sac; at its upper portion was a small triangular mass, the rudiment of a cervix. It did not communicate with the vagina; it had no opening. There were two cornua, terminating in large oval masses whose distal portions had cavities lined with a smooth membrane continuous with the lining of the Fallopian tubes; but they were wholly closed in a downward direction, towards the triangular body, and therefore had no communication with the vagina. The broad ligament was complete. The ovaries were normal in shape, and both had cicatricial depressions apparently indicating ovulation, although there was no blood. The urethral orifice was distinct from the vagina.

DR. JACKSON said that a number of years ago he saw in a dissecting-room subject a remarkable example of undeveloped uterine organs. The subject was a German immigrant twenty-one years of age, of whom it was positively asserted that she had menstruated regularly, previously to the seasickness with which she suffered on the voyage. The vulva was perfect; but on separating the labia the vagina was seen at once to terminate in a cul-de-sac. At the normal site of the vagina was a thickened condition of the tissues, which increased at the upper part and finally branched as the analogues of uterine cornua. There was a short Fallopian tube and quite a large flattened ovary on one side. The other horn was several inches in length, and extended down the course of the round ligament, passed through the parietes of the abdomen, and escaped below Poupart's ligament, where the students, dissecting, found a "curious lymphatic gland," which proved to be the ovary, but remarkably smooth. No cavity was anywhere found in any portion of this specimen. The case was published.

DR. SINCLAIR, on being appealed to, said he thought the alleged menstruation might have occurred vicariously.

DR. JACKSON stated that he had seen a specimen of blood, apparently menstrual, reported to have oozed from a patient's cheek, and considered an example of vicarious menstruation.

DR. MINOT stated that Dr. Townsend, of Natick, had a patient who menstruated from the nipples repeatedly and in large quantities.

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THE ANNUAL REPORT OF PRESIDENT ELIOT.

THE annual report of the President of Harvard College contains many points which are of interest to medical men; and first among these is the allusion to the losses which the university has sustained by death. Science has lost Agassiz and Wyman, the medical profession Dr. George Derby, and the dental school one of its ablest professors, Dr. Hitchcock. The professorships thus left vacant are in three instances, at least, peculiarly difficult to fill. It will, we fear, be a long time before worthy successors to these men can be found. We are not rich enough in scientific men to fill the gaps so rapidly made in the front rank. A few more such losses would seriously cripple the university.

The liberal and progressive character of the government of the university is perhaps shown nowhere more clearly than in its earnest desire to promote the physical exercises of the students. The changes which have taken place during the past ten years in the character and variety of these exercises, and in the number of students who participate in them, is marvelous. For instance, to provide the greatest facilities possible for boating, a boat-house has been built by the corporation, so arranged that all students for a very moderate sum may indulge in this exercise for the season. The numerous athletic clubs which have of late years been formed, and the great variety of manly sports practiced at Harvard, are abundant evidence of the success of this policy. The gymnasium has become far too small for the greatly increased number of students who frequent it, and it is now proposed to convert it into a swimming bath which would be available at all seasons of the year.

While the president does not recommend compulsory physical exercise at college, he thinks this should be part of every school education. "Most American schools," he says, "entirely neglect this very important part of their proper function; many young men, therefore, come to the university with undeveloped muscles, a bad carriage, and an impaired digestion, without skill in out-of-door games and unable to ride, row, swim, or shoot." This unsightly picture represents unfortunately a large class of young Americans; a class which we hope to see constantly diminishing. Already a great improvement is noticed in the physique of our city boys whose military and gymnastic training has straightened their backs and strengthened their muscles. Habits of exercise thus acquired in early life should be encouraged in every possible way during the university course. We hope the day will come also when American men will see something more than childish sport in these habits; when the business man, the lawyer, and even that sacred individual, the doctor, will be able to spare a few moments of his precious time to recuperate nature. The severity of our climate cannot be pleaded as an excuse, for even in Canada a season is found for fox-hunting, cricket, and the full list of English games. The present "revival," if we may call it such, of athletic sports at Harvard is a movement full of interest and promise.

The corporation has erected a small pavilion hospital, in an isolated position, with every convenience for taking care of the sick, thus enabling the college to protect itself in the future against epidemics, with which on one or two occasions it has been threatened.

We are glad to see that the new plan of instruction of the medical department has met with such success from a pecuniary point of view. Whereas in two previous years there had been a considerable deficit, the accounts of last year show a surplus of over three thousand dollars. This, with a rapidly increasing class and a strong indorsement from the public in the shape of a handsome fund subscribed for a new building, makes the future unusually promising.

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RAIN-WATER CONDUCTORS AS SEWER-VENTILATORS.

The Suffolk District Medical Society will be called upon next Saturday night to consider a sanitary question of great importance. The discussion of the subject in this society was introduced on the motion of a medical gentleman who desires that the profession shall protest against what he deems an outrage perpetrated by the City Council of Boston against the public health. The grievance is in brief as follows. About six months ago the City Council passed an order directing that all rain-water pipes then discharging directly upon the sidewalks should be connected with the common sewers, and that the names of those who neglected to obey the order should be recorded. The object of this was mainly to prevent the overflow of rain-water and snow-water upon the sidewalks; indirectly, it was intended to effect the general repair of defective conductors. It does not appear that the question of sewer-ventilation was touched upon in the deliberations of the City Council; the only purpose of the measure, expressed or implied, was as above stated. It is not even plain that the order has a legal and binding force, although in obedience to its dictates many house-holders proceeded to connect their rain-water pipes with the street sewers. With zeal, if not with entire discretion, the physician above alluded to has repeatedly protested in the daily press against this action on the part of the city government, on the ground that just so many openings are made for the escape of "putrid" sewer-gases, resulting in the contamination of the atmosphere and the development of conditions which will certainly be prejudicial to the public health. Inasmuch as this matter, though local in its present bearings, touches important sanitary principles of universal application, we venture to say a word concerning it.

If there is one subject upon which sanitarians are agreed, it is that sewer-gases are unwholesome. To render these gases innoxious, to deprive them as far as possible of their harmful quality, has been for years a difficult task for sanitary engineers, and the problem is still far from solution. It has been found practically impossible to deal with the gaseous and with the fluid constituents of the sewer-contents alike, and in the expectation that both will be discharged together at the sewer-outlet; for water and gas have contrary tendencies. Accordingly, means are taken to prevent the backward pressure of the gases and to oppose their escape into dwellings. Drain-traps offer to such pressure and escape an obstacle which is measurably effective; but at times and under certain circumstances even these preventives are forced. To meet this difficulty, cities which are alive to the importance of the matter provide ventilation for their sewers, and in some instances, like those of London, Liverpool, and Dantzic, very elaborate plans are put in operation for the escape of sewer-gases, their disinfection, and their destruction. Moreover, the fact of the diffusion of the noxious gases and of the necessity for preventing their escape into dwellings has long been recognized in practice, in the special measures for house-drain ventilation adopted by intelligent builders; we allude to the continuation of the soil-pipe, in its full size, to the outer air above the roof of the house, a plan fully commended by sanitary authorities. With all these measures in force, the systematic ventilation of sewers along the roadway and the provision of proper outlets for the escape of the gases from house-drains, the interior of dwellings is protected. Under such conditions, it is never justifiable to employ rain-water conductors as sewer-ventilators.

But what is the condition of things in Boston? It is essentially that common to American cities; probably not any better, we hope not any worse.

Our sewers have no ventilation save what they obtain by accident or force. Until our City Council unintentionally afforded an additional chance for sewer-air to reach the outer air through the rain-water conductors, every dwelling had so much the greater chance of receiving intermittent discharges of sewer-gas within its walls and where the exhalations would be most harmful. We can hardly take into account here the comparatively few houses whose soil-pipes are open at both ends, — into the drain and above the roof, — or those whose traps or drains have special ventilation. The City Council therefore enacted better than they knew, in our opinion; and those who, in executing the order, connected their conductors, without traps, with the sewer did not commit an error. The sewer-gas seeks the outer air, where it is speedily diluted, diffused, oxidized; it is far better that the noxious product should escape outside our dwellings, than within them.

We are aware that certain exceptional cases may be cited where harm may come because the upper opening of the rain-water pipe is too near a window, permitting the entrance of the gas to sleeping-rooms. Such cases will be few, we think, and the resulting harm will bear no proportion to that probable where no outlet for sewer-air is provided. When our city government becomes enlightened enough and liberal enough to provide a good system of sewerage in all respects, then we will join heartily in denouncing the use of rain-water conductors as sewer-ventilators. Meanwhile, we think we ought to be thankful that things are not worse than they are.

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INFANTILE PARALYSIS ACQUIRED DURING DELIVERY.

The Paralysis of Children acquired during Delivery is the subject of a recent article by Dr. Seeligmüller, of Halle. The paper, as contained in the *London Medical Record* of December 23, 1874, states that in text-books only facial paralysis is mentioned, a form which is seen frequently enough, but is often overlooked, as it is only perceptible when the child cries, and in most instances it disappears during the first few days after delivery. Its pathogeny is very simple; the blade of the forceps presses on the trunk of the facial nerve or one of its branches, and causes an arrest in the excitability of the affected nerve-fibres and consequent paralysis of the facial muscles supplied by them. As has been stated, this form of paralysis generally recovers spontaneously in a short time after the birth of the child, but sometimes the lesion is permanent. Duchenne relates one case of a girl of five and a half years and another of a girl of fifteen years, both of whom suffered from well-marked facial hemiplegia consequent upon the application of forceps. When seen by Duchenne, all chance of cure by electricity was lost.

The application of forceps may produce, besides facial paralysis, paralysis in other regions; for example, paralysis of one or other of the upper extremities through pressure of the apex of the forceps on the brachial plexus. A case is mentioned of a child who, when eleven days old, did not move its right arm.

The limb lay immovable along the trunk of the child; the fore-arm was extended in a state of pronation; the fingers were flexed on the palm; these, as also the hand in a less degree, moved with fair freedom. The arm was completely powerless, though its sensibility was not at all diminished.

By the twenty-fourth day after delivery, after friction with warm aromatic wine, there was some improvement. At this date the child was lost sight of. Most frequently paralysis of one or both upper extremities is the result of difficult extraction, particularly in breech-presentations in cases where there have been severe pressure and dragging on the shoulders. The author has found but one necropsy published, from which to report respecting the pathological anatomy of the injured parts. In this instance there was found a slight extravasation of blood into the tissue surrounding the left brachial plexus at its origin. The nerve-fibres forming the plexus, from their origin to beyond the scaleni, were stained with blood, which was not removable by washing; the consistence of the nerves remained normal. The facial nerve was similarly affected at its exit from the skull, and the surrounding tissues were ecchymosed. Quite in accordance with this state of things is a report from Dr. Fritsch, who found in several necropsies, made on breech-cases, numerous ecchymoses beneath the skin in the neighborhood of the shoulder; and who accordingly conjectured that the same had occurred in the region of the muscles and nerves. That such ecchymoses can alone produce paralysis, so that with their disappearance the paralysis also vanishes, the following observation of Dr. Fritsch goes to prove. On the second day after a difficult delivery of the head, he discovered in the neighborhood of the lower end of the sterno-mastoid a distinct baggy swelling (hæmatoma) about two inches broad. The arm was paralyzed. With the disappearance of the swelling, perfect movement returned.

In typical cases of uncomplicated paralysis of the upper extremity the paralyzed arm hangs motionless by the side of the trunk, the head of the humerus is rotated inward to its extreme extent, the triceps being thrown forward. The position of the hand is most striking. It is in a state of extreme pronation, the arm lying along the side of the body with the palm of the hand looking outwards; and in the most usual position of the arm, that of moderate flexion at the elbow, the radial border of the hand with the thumb does not look forwards and upwards, but the ulnar border, with the little finger, assumes that position. The function of the hand is, in consequence, much interfered with, although the fingers often retain their freedom of movement.

The abnormal rotation of the upper arm depends upon paralysis of the infra-spinatus muscle, and therefore of the subscapular nerve that supplies it. The infra-spinatus alone rotates the arm outwards; consequently, when it becomes paralyzed, its powerful antagonists, especially the pectoralis major, and also the sub-scapularis and latissimus dorsi, rotate the arm inwards. That the infra-spinatus is really paralyzed has been proved by faradization. Other muscles in the region of the shoulder may be paralyzed, as the deltoid and also not unfrequently the biceps and brachialis anticus. From the wasting of the deltoid the humerus sinks downwards, and a hollow appears beneath the acromion; while, in consequence of the paralysis of the flexor muscles, the arm becomes incapable of active flexion at the elbow.

As to prognosis, — remembering that we have to deal not only with lesions of nerves, but likewise with lesions of muscles, often complicated with pressure upon the nerve trunks from extravasations, etc., — we should not leave the cure to nature alone. The author agrees with Duchenne, that if left alone the paralyzed muscles rapidly atrophy and degenerate. It is only the earliest possible application of methodical faradization that can prevent this unfortunate result. Even facial paralysis should not be left to spontaneous recovery more than four weeks, and paralysis of the upper extremity a less time. As soon as the child is five or six weeks old, a feeble current of faradic electricity should be applied for about five minutes, twice or three times a week at first, to each paralyzed muscle. Special attention must be paid to the infra-spinatus muscle in cases of rotation of the head of the humerus inwards; both electrodes must be applied directly upon the fossa infra-spinata. Passive motion of the humerus outwards should not be omitted.

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MEDICAL NOTES.

— Sir Henry Thompson has resigned the office of surgeon at University College Hospital, London. The early retirement of this eminent surgeon from the public duties of the hospital is said to be owing to the pressure of private professional work, which will be the more severely felt now, owing to the untimely death of the late Mr. John Foster, who had for many years rendered him great assistance.

— The forty-third annual meeting of the British Medical Association will be held in Edinburgh in the first week of August, 1875, under the presidency of Sir Robert Christison. The addresses are to be given by Dr. Warburton Begbie, and Professors Spence and Rutherford. The programme is an inviting one. It is anticipated that Professor Lister will give a great demonstration of the results arrived at in antiseptic surgery. It is intended to establish a scientific section devoted more particularly to papers on physiology and anatomy. This association was founded in 1832 by Sir C. Hastings, of Worcester, at a meeting of some fifty members of the profession. The association at present numbers considerably more than five thousand members.

— A case of phthisis was admitted to the Metropolitan Free Hospital, London, the cause of which seemed to be immoderate drinking. The patient asserted positively that for a week at a time he had occasionally drunk six or seven gallons of beer daily.

— The Paris correspondent of the *British Medical Journal* writes that at a recent meeting of the Academy, M. Le Fort read his report on a paper by Dr. Lelièvre on a substitute for the ordinary linseed-meal poultice, which M. Le Fort was charged to investigate. Dr. Lelièvre proposes the "fucus crispus," or Carraghean lichen, as it possesses the following advantages. It may be cut into thin plates of the size required, and, when steeped in hot water, it softens and swells in a few minutes. This new poultice has been tried by MM. Demarquay, Gosselin, and Verneuil in their respective hospitals, and they have pronounced it to be far superior to the linseed poultice; it keeps moist for more than sixteen or eighteen hours; it does not slip; is inodorous; does not readily ferment, nor does it soil the linen or bed of the patient. This new poultice is destined to render great service to the hospitals, ambulances, and particularly on board ship, where it is difficult to keep the linseed in a state of preservation.

— Mr. John B. Foster, the assistant of Sir Henry Thompson, met his death recently under somewhat peculiar circumstances. An explosion of gas in the room where he was, brought on an attack of meningitis, which caused his death in a few days.

— From recent experiments, Professor Lister has arrived at the conclusion that the septic matter present in water is not in solution, but consists of insoluble particles, which are held in suspense.

— Dr. Chenu reports that during the Franco-German war, the French lost 138,871 men by wounds or disease. This includes 2818 officers. The Germans lost 40,741.

— The Children's Hospital of this city has just established, and now has in full operation, a dispensary for the gratuitous treatment of children who are not sick enough to be admitted to the hospital wards. This action on the part of the hospital is entirely praiseworthy; it attests both the enterprise and the prosperity of this well-known Boston charity. In general we are opposed to the multiplication of medical dispensaries, as tending to increase fraudulent practices among those least worthy to receive the benefits of professional liberality, and because, on that account, the revenue as well as the *morale* of physicians is injured. But we make an exception in the present instance, and for good reasons: the new dispensary is in the midst of a thickly settled section, which is far out of the reach of the institutions already in existence for similar service. There is really a field and a need for the new department, and the purpose of its founders is fully justified. The convenient and accessible room secured at 1525 Washington Street and the efficient administration of the hospital staff are two additional and fruitful elements of success for the new enterprise.

— Dr. Austin Flint recommends the cold pack in place of the cold bath in the treatment of disease. The patient's body is wrapped in a sheet wet in cold water, and the sheet is sprinkled from time to time from a watering-pot. The pack is to be continued from ten minutes to half an hour, according to the temperature and condition of the pulse.

— A donation of twenty thousand dollars has recently been made by a citizen of Syracuse to the university in that city. Since last June the university has received one hundred and seventy-four thousand dollars, which brings its endowment up to eight hundred thousand dollars.

— Some curious statistics regarding inheritance have recently been published by Dr. Harris, of New York. His attention, says the *American Medical Weekly*, was called, some time since, to a county on the upper Hudson which showed a remarkable proportion of crime and poverty to the whole population,—four hundred and eighty of its forty thousand inhabitants being in the alms-house,—and upon looking at the records a little, he found certain names continually appearing. Becoming interested in the subject, he concluded to search the genealogies of these families, and, after a thorough investigation, he discovered that from a young girl named "Margaret," who was left adrift, nobody remembers how, in a village of the county, seventy years ago, and, in the absence of an alms-house, was left to grow up as best she could, have descended two hundred criminals. As an illustration of this remarkable record, in one single generation of her unhappy line there were twenty children; of these, three died in infancy, and seventeen survived to maturity. Of the seventeen, nine served in the State prisons for high crimes an aggregate term of fifty years, while the others were frequent inmates of jails and penitentiaries and alms-houses! The whole number of this girl's descendants, through six generations, is nine hundred, and besides the two hundred who are on record as criminals, a large number have been idiots, imbeciles, drunkards, prostitutes, and paupers. A stronger argument in favor of the inheritance of vice, and for careful treatment of pauper children, could hardly be found.

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SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

The following operations were performed during the week ending Friday, January 15, 1875: —

1. Excision of tibia for compound fracture of the leg. 2. Wound of musculo-spiral nerve. 3. Abscess of the thigh. 4. Necrosis of the tibia. 5. Lupus. 6. Hydrocele of the cord. 7. Tumor of eyelid. 8. Canthoplasty. 9. Necrosis of the tibia. 10. Fibro-cartilaginous tumor of face. 11. Carbuncle.

1. *Excision of the Tibia.* — The patient is twenty-nine years old, and has worked in a lead factory eight years. He was injured on an elevator a short time before he was brought to the hospital. There was a compound comminuted fracture of the tibia and fibula in the middle third. The ends of the fractured tibia were protruding from the wound. The large vessels were not injured. Dr. Cheever removed a detached piece of the tibia, an inch long, and comprising two thirds of the circumference of the shaft. The sharp extremity of each fragment of the tibia was sawed off, the bones put in place, and the leg laid in a fracture-box. A cold-water dressing was used at first. At present, the application is a lotion of chlorinated soda and laudanum.

2. *Wound of Musculo-Spiral Nerve.* — A press-boy, sixteen years of age, was caught in a lithographic press, and received a severe lacerated wound of the right arm. On the outer side of the arm was a jagged wound, three inches long, extending downwards and inwards towards the elbow-joint. The supinator longus and triceps muscles were divided, and also the musculo-spiral nerve. A small fragment was gouged out of the shaft of the humerus. There

was a small wound on the inside of the arm which connected with the first by a sinus beneath the biceps. There was no loss of sensation in the hand, and both the radial and ulna arteries pulsated at the wrist. Dr. Cheever joined the ends of the divided nerve by two interrupted silk sutures. The arm was placed in a straight position and secured by a splint. Five days after the injury, sensation continued good over the dorsum of the thumb and forefinger.

4. *Necrosis of the Tibia.* — A girl, nine years of age, hurt her leg three months ago, while playing ball. Suppuration soon followed, and has continued to the present time. The dressing had not been changed for *five weeks* previous to her entrance to the hospital. She was extremely weak, emaciated, and nervous, and suffering severely with pain in the leg. She was etherized, the sinuses enlarged, and a sequestrum, three inches long, removed from the shaft of the left tibia. The shaft was very soft and brittle.

Disease of the right hip has become developed since the injury. There is flattening of the nates, tenderness and swelling about the joint, an unnatural fullness in the groin, pain in the hip and knee, distinct grating on rotating the femur, and impaired motion. Extension was applied with great relief to the pain.

5. *Lupus.* — The patient is sixty-one years of age, and is in a poor state of health. She has mitral disease of the heart, and has had several attacks of severe syncope during her stay in the hospital, but she is better of the latter and very anxious for an operation upon the lupus. The disease was first noticed about a year ago, though for some time previously she had been troubled with a nasal discharge. The nose is flattened from ulceration. At the base of the septum and on each ala there is a dry brownish crust, covering several excavated ulcers, and surrounded by a dull-red, swollen border of skin. The discharge from the diseased surface is very slight, and the pain is not severe. Ether was very carefully given to this patient, with entire success. The pulse became firmer and more steady under its use. Dr. Cheever applied the galvano-cautery to the whole of the diseased surface. The wire being heated only to a dull-red heat, not a drop of blood was seen. Cold-water dressing was applied.

6. *Hydrocele of the Cord.* — The cyst was about an inch in diameter and had been noticed but a short time. It was emptied with a needle and ordered to be blistered should it refill. This boy was thought by his parents to have the same disease as his brother, upon whom Dr. Cheever performed Wood's operation for the radical cure of hernia. The operation was performed ten years ago, and may be called successful, as the patient is now sixteen years old and has never had a return of the rupture.

10. *Fibro-Cartilaginous Tumor of Face.* — The patient is a young woman, and the tumor of about a year's duration. It was situated just below the left ear, and dipped down behind the ramus of the lower jaw. It was firm, elastic, and slightly movable. Dr. Thorndike removed the growth through a vertical incision, being obliged to carry the dissection deep in the parotid region. The tumor was fibro-cartilaginous, and about the size of an almond. The hæmorrhage was free, though no large vessel was divided. The wound was closed with sutures.

G. W. GAY, M. D.

SALICYLIC ACID.

MESSRS. EDITORS, — I inclose, with a request for publication, an extract from a letter just received from Professor Schwartz, of the University of Gratz, giving some account of an important communication made to the recent German Scientific Congress at Breslau, and which will interest the readers of the JOURNAL. E. N. HORSFORD.

CAMBRIDGE, *January* 7, 1875.

"In the chemical section, the most important thing was the exhibition of the salicylic acid now produced in large quantities by the process of Kolbe. It is made from $C_{12}H_6O_2$ and NaO, HO (phenol-sodium), into which is conducted dry carbonic acid at a temperature of 170° C. There is formed salicylate of soda, which decomposed by hydrochloric acid precipitates the salicylic acid. This is the best disinfecting agent known. It is without odor, tasteless, not poisonous, and, even in small quantities, absolutely preventing putrefaction. Meat immersed in a solution of salicylic acid, in an open vessel, remained perfectly sweet for weeks. It prevents milk from coagulation. Fruits do not become moldy, and wounds heal without festering. In the case of a patient whose leg was amputated, the wound was sprinkled with a little powdered salicylic acid, and bandaged for six days without being touched; it was then found to be healed over without the slightest formation of pus.

"It is easy to see what enormous significance attaches to this discovery. The transportation of meat, the preservation of bodies, of anatomical and zoölogical preparations, of fish, mollusca, milk, beer, wine, etc., will be greatly promoted. It must be remembered that salicylic acid is perhaps twice as effective as carbolic acid, and that it is wanting in the poisonous and unpleasant qualities which characterize the carbolic acid. Dr. Fr. v. Heyden has erected, at the suggestion of Professor Kolbe, a manufactory of salicylic acid at Dresden, where one may now obtain the acid at ten thalers per kilogramme (about $3.50 per pound)." [1]

[It may be well to add that salicylic acid is a constituent of the oil of wintergreen (the checker-berry, *Gaultheria procumbens*, of New England). Its production from carbolic acid (phenol) on a commercial scale, and so from "dead oil," a familiar product of the distillation of coal tar, is one of the triumphs of modern chemistry. It promises so much in practical surgery, in securing healing by first intention, in the prevention of pyæmia, and in the arrest of the growth of all forms of microscopic animal and vegetable life that characterize fermentation and putrefaction, that opportunity for experiment cannot be too soon opened for all. The article can be imported in small quantities through the mail, and in larger quantities through any of the leading druggists. E. N. H.

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[1] Its present price is not far from three dollars per ounce.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending January 23, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: bronchitis, influenza, pneumonia, and rheumatism.

In the Connecticut Valley: bronchitis, pneumonia, rheumatism, croup, and tonsillitis. There is a decided subsidence of diphtheria.

In the Midland section: bronchitis, influenza, rheumatism, pneumonia, and whooping-cough. Measles begins to be reported in this section. Erysipelas and tonsillitis prevail to a limited extent.

In Middlesex and Essex: influenza, pneumonia, scarlatina, bronchitis, rheumatism, whooping-cough, and measles. Tonsillitis and mumps are prevalent in some parts. Scarlatina is reported epidemic in Lawrence.

In Boston and its suburbs: bronchitis, measles, pneumonia, rheumatism, scarlatina, tonsillitis, and whooping-cough. Mumps prevails in certain parts.

In the Southeastern counties: bronchitis, influenza, whooping-cough, rheumatism, pneumonia, and scarlatina. In Taunton, "an epidemic of mumps."

Bronchitis is everywhere prevalent; many physicians report that unusual abdominal symptoms attend these cases. Measles continues in the eastern parts of the State, and is extending. Scarlatina is most prevalent in Boston and the Southeastern counties. Pneumonia and rheumatism prevail in all sections. Small-pox is reported in the Blackstone Valley.

If we compare with the report of last week, we find that influenza, measles, tonsillitis, scarlatina, and mumps have increased in prevalence; while diphtheria, pneumonia, rheumatism, whooping-cough, and typhoid are less prevalent.

F. W. DRAPER, M. D., Registrar.

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COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING JANUARY 16, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	677	34
Philadelphia	775,000	329	22
Brooklyn	450,000	262	30
Boston	350,000	175	26
Providence	100,000	32	17
Worcester	50,000	14	15
Lowell	50,000	15	16
Cambridge	44,000	21	25
Fall River	34,200	16	24
Lawrence	33,000	10	16
Springfield	33,000	5	8
Lynn	28,000	16	30
Salem	26,000	16	32

ERRATUM. — Page 72, second line from the bottom, for 1816 read 1691.

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THE BOSTON
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MANUAL DILATATION OF THE OS UTERI AS A MEANS OF INDUCING PREMATURE LABOR.

BY A. D. SINCLAIR, M. D. (HARV.), L. M. (EDIN.),
Fellow of the Obstetrical Societies of Boston and London, etc.

FROM time to time various means have been resorted to, in order to sufficiently dilate the uterine orifice to admit the hand into the interior of the uterus. Chief among these have been sponge tents and what are known as Keiller's or Barnes's dilators. To the use of these instruments obstetric medicine has been and will be greatly indebted, particularly in the operation of inducing premature labor. It is evident, however, that the hand of the obstetrician, as a uterine dilator, may be made a more efficient means, and have claims upon our attention.

1. The hand is always available. 2. It can be easily governed. 3. Wherever a sponge tent or rubber bag can be inserted, the finger may be introduced. 4. The hand and the brain of the operator being in constant sympathy, giving him the precise idea of the condition of the parts, he is enabled to regulate the force necessary to effect dilatation. 5. Artificial dilators frequently require manual aid to keep them in place. 6. As the skilled surgeon, in the process of certain operations, finds greater safety in the use of the fingers than the knife, so may the obstetrician substitute his hand for artificial means as often as practicable.

Delivery was effected by the hand in the following cases: One of convulsions at the seventh month, three of convulsions at the eighth month, two of placenta prævia at the eighth month, one of uterine hæmorrhage at the fifth month, one of accidental hæmorrhage in the ninth month, and one of persistent vomiting at the seventh month.

CASE I. On the 18th of January, 1870, was called to see a primipara, aged twenty-three years, who was seven months advanced in pregnancy, and who had had frequent and severe convulsions for ten hours; the severity of the seizures had been alleviated by chloroform, but the attacks had returned with unabated violence on discontinuing the anæsthetic. She had passed no urine for twenty-four hours, and that obtained from the bladder was very albuminous. The lower extremities were much swollen. The case was regarded as one of extreme danger. The induction of premature labor was advised, as it offered the greatest safety to the patient; the hand was proposed as the instrument to effect delivery. The patient was again chloroformed. The hand being oiled, a finger was passed into the orifice of the vagina, which was small; but after a short time it yielded to gentle pressure sufficiently to admit the whole hand. In the same manner the entrance into the os uteri was effected. Although the opening was at first so small as not to admit the point of the index finger, the exertion of gentle force effected an entrance. Waited until the cervix relaxed, then passed another finger alongside the first, paused until further relaxation ensued, then insinuated a third finger, and so on until the five fingers, wedge-shaped, were all engaged within the cervical cavity. By gentle force, patiently sustained, the whole hand could now be passed into the cavity of the uterus, but it was allowed to remain in the cervical cavity until complete relaxation had taken place. This important point should be borne in mind, for on it greatly depends the success of the operation. The child was turned and extracted, and is now living. An hour and a half was occupied in the process, with no evidence that the soft parts had suffered contusion. The only uterine contraction observed was while the hand was in the womb; and deep anæsthesia was required to overcome it. After delivery the uterus contracted well, and there was no unusual hæmorrhage. Convulsions recurred occasionally, for nearly twenty-four hours; they were mitigated by chloroform. The patient made a good recovery, and has since had normal labors.

CASE II. On July 26, 1870, saw, in consultation, Mrs. ——, aged twenty-five years. She was eight months advanced in her first pregnancy. She had been healthy till after conception, when she had more or less headache with gastric disturbance. Her feet began to swell as pregnancy advanced, the œdema being confined to the lower extremities till after the sixth month, when it became general. The urine was scanty and albuminous. Convulsions came on early in the day and continued at short intervals; they were moderated by ether. She was semi-conscious. Immediate delivery by manual dilatation of the os uteri was advised and carried out as in Case I. The cervix was very rigid. The distance between the os externum and the os internum was surprisingly long. An occasional feeble contraction of the uterus was perceived during the delivery, which occupied four hours. The fœtal head presented; version was performed and a still-born child extracted. The uterus contracted normally. After a few hours the patient began to recover consciousness; she had no more convulsions, and appeared to be doing well for seven or eight days; at the end of that time she had profuse hæmorrhage from the vagina, which, in the absence of medical aid for some time after its onset, proved fatal.

CASE III. In August, 1872, saw Mrs. ——, a multipara, who had been suddenly seized with convulsions, an hour or two previous, at the beginning of the eighth month of pregnancy. Ether had already been administered by a physician in attendance. From the albuminous state of the urine and the frequent recurrence of the convulsions, it was agreed that immediate delivery was the safest practice. Under anæsthesia, the hand was used as a dilator of the os uteri, which after the period of an hour and a quarter became wide enough to admit the hand into the interior of the womb. The fœtus, whose head presented, was turned and extracted alive. At times, during the process of dilatation, the uterus contracted feebly, and after delivery free hæmorrhage came on, which was arrested with difficulty. She made a good recovery and has since given birth.

Case IV. On December 25, 1874, was called to advise on the case of Mrs. ——, a young primipara, eight months advanced in pregnancy. Her health had always been excellent until some time after conception. She had had general œdema for several weeks, with headache later on. One day about noon, she was suddenly seized with convulsions, which recurred at short intervals; she was chloroformed. The urine was almost suppressed; the small quantity taken from the bladder was found to be almost solid with albumen. Three or four hours later, premature delivery was suggested, as the case wore a threatening aspect. This measure, however, was deferred, in the hope that time and other remedies might obviate this last resort, but the convulsions returned with unabated violence and frequency until late in the forenoon of the next day, when delivery was effected by the hand, in a little over an hour. The child was turned and extracted still-born. The uterus contracted naturally. There were no further convulsions and the patient recovered partial consciousness, but soon relapsed into coma and died in nine hours after delivery.

Case V. On June 29, 1874, was called to see Mrs. ——, aged forty, eight months advanced in her second pregnancy, fourteen years after the birth of her first child. From the seventh to the eighth month, at intervals of a few days, she had had uterine hæmorrhage; but during the eight or ten days before she was seen, she had large effusions, daily, followed by pallor and exhaustion. For this urgent state of things her physician asked in succession two other physicians, who in turn advised the tampon and rest in bed. This course was faithfully pursued without relief. A third physician was then asked in council, who invited the fourth. Ether was administered. After removing an immense plug of rags and clotted blood from an enormously distended vagina, found the uterine orifice firmly closed. By gentle, steady pressure, the finger was readily insinuated into the cavity of the cervix, which in a few minutes relaxed so as to admit another finger, and so on, until the whole hand was engaged. Observing the precaution given in Case I., the hand was not passed at once from the cervical into the uterine cavity. Very soon, however, the parts had so relaxed as to warrant the seizure of a fœtal foot. The child was turned and delivery effected in twenty minutes. The placenta was found covering fully three fourths of the os internum. The uterus contracted well, and as soon as the patient was able to swallow, ergot was given. Mother and child did well.

Case VI. Many years ago, as well as can be recollected (having lost the notes), was called to see a multipara with two physicians who had charge. As there had been much flowing, the apprehension that the case would prove fatal warranted immediate delivery. The cervix uteri was very rigid; nearly two hours was occupied in passing the hand into the uterus, when the child was turned and extracted, lifeless. Found that the placenta covered the whole os internum. The patient made a slow but complete recovery.

Case VII. Mrs. ——, aged thirty-four, advanced five months in her third pregnancy, had hæmorrhage from the vagina, more or less, for over two months, but for the past fortnight nearly constant, and profuse. It was ascertained that several futile attempts had been made to procure abortion, between the second and third months. Taking into consideration the great loss of blood, and the mental condition of the patient consequent on her wrong-doing, was led to the decision, in council with her physician, at once to empty the uterus of its contents. On October 11, 1874, the operation was performed, under ether; the hand was used as the dilator of the cervix, which was exceedingly rigid. Three hours of patient effort was required to effect an entrance, when a fœtus of five months was brought away. The placenta was found everywhere adherent, except at the lower margin, where the finger could be passed beneath it. It was removed by pieces after a good deal of trouble. The patient did well.

Case VIII. On September 4, 1874, was called to see Mrs. ——, a multipara, who had been seized a few hours previous with hæmorrhage from the uterus. She was in the ninth month of pregnancy. It was decided in consultation with her attending physician that labor should be effected at once, as the hæmorrhage continued and labor pains were wanting. The os uteri was soft and dilatable; the hand was easily passed into the uterus, a fœtal foot seized, the child turned and extracted. The uterus contracted naturally. The process occupied about fifteen minutes. The child appeared still-born, but after a while was resuscitated, and lived about twenty-four hours. Notwithstanding her great loss of blood, the patient made a good recovery.

Case IX. Mrs. ——, aged thirty-six, a multipara who had suffered much from vomiting throughout her former pregnancies, had advanced to the seventh month of utero-gestation. The vomiting had been more constant in this pregnancy than in any former one, causing great exhaustion. Albumen had not appeared in the urine. Various remedies were tried without relief, and she daily became more prostrate, restless, and wakeful. The pulse from 140 rose to 160 on the 9th of December, 1870, with a sunken condition of the eyes and ashy hue of the skin. She had the appearance of one in articulo mortis. This truly alarming state of things forced the determination to relieve the uterus of its contents as the only means of safety left to the patient. Without ether, the hand was passed into the uterus and a male fœtus, whose feet presented, was extracted; then a second male child, which presented by the head, was turned and taken away. There was complete absence of uterine contraction during the process of delivery, which took about five minutes. Ergot was given and the uterus contracted well. One of the twins lived twenty minutes, the other eighteen months. The mother continued to vomit during the next thirty-six hours, and recovery seemed doubtful; but as food was gradually retained in the stomach, after a few weeks she was able to join the family.

All of these cases, except the last, were seen in consultation.

The subject of manual dilatation has been discussed at the meetings of the Obstetrical Society, at various times, for the past four or five years. Several members have adopted the practice under circumstances similar to those detailed in the foregoing cases.

THE USE OF THE MEMBRANA TYMPANI AS A PHONAUTOGRAPH.

BY CLARENCE J. BLAKE, M. D. (HARV.).

THE value of the membrana tympani, used as a phonautographic membrane in obtaining tracings of sonorous vibrations, has been amply illustrated by a series of experiments made during the past year, the results of some of which were presented at a recent meeting of the Boston Society for the Advancement of Medical Science. The membranes employed have been preferably those of the human subject, and the method of preparation and of adaptation to the purpose has been as follows.

A specimen as nearly normal as possible having been obtained, and the temporal bone removed and cleaned by removal of the soft parts, the lining of the external auditory canal is cut away to a line close to the membrana tympani. The thin plate of bone forming the roof of the tympanic cavity is then cut through by means of a bone chisel, great care being necessary to avoid disturbing the ossicula. The opening should be sufficiently large to permit a clear view of the cavity from the antrum mastoideum posteriorly to the opening of the Eustachian tube anteriorly, uncovering the malleus and incus and extending inward so far as to reveal the inner tympanic wall and the articulation of the incus and stapes. This latter articulation is then divided by means of a narrow-bladed knife or paracentesis needle, and the musculus tensor tympani also cut across close to the insertion of its tendon on the malleus; or, if it be desirable to retain this muscle for experiment, its belly is dissected out from the bony canal in which it is lodged. A section is then made from behind forward through the tympanic cavity, separating the petrous from the mastoid and squamous portions of the temporal bone, a hair saw being used for this purpose and carried between the incus and stapes through the divided articulation. At this point the saw should be inclined inward toward the stapes, and the descending process of the incus pressed gently outward by means of a spatula, in order to avoid any movement of the incus, a touch of the saw upon the long process of the incus being often sufficient to rupture the capsular ligament of the articulation of the incus and malleus, and so far derange the relations of the ossicula as to render the specimen unfit for experiment.

The petrous portion of the temporal bone, with the stapes, having been removed by this section, the inner surface of the membrana tympani is freely exposed, with the malleus and incus in position. The outer portion of the floor of the tympanum is then removed with a file or the Rüdinger knife, and the specimen cleansed from the small pieces of bone and the bone dust which would otherwise load the membrana tympani and interfere with its vibration, or obstruct the movements of the ossicula. As the specimen becomes dry, it is moistened with a mixture of equal parts of glycerine and water.

To obtain tracings of the sound-waves conveyed to the membrana tympani, it is necessary that the specimen be firmly fixed, that a style should be attached to the membrane, and that a plate upon which the movements of the style are to be traced should be carried smoothly and at a uniform speed in a direction at a right angle to the direction of the excursion of the style. For this purpose, the specimen is attached, by means of thumb-screws passing through holes bored in the squamous portion of the bone, or by means of a clamp, to a perpendicular bar sliding in an upright and moved by a ratchet-wheel. To the upright is affixed, horizontally, a metallic stage six inches in length, upon which slides a metal carriage carrying a glass plate. The carriage is drawn by a weight on the end of a cord passing over a wheel at the end of the stage and attached to the carriage. A bell-shaped mouth-piece, or a conversation tube, is inserted in the external auditory meatus and luted in position.

A musical tone sounded in the bell or mouth of the tube, being conveyed to the membrana tympani, will set it in corresponding vibration—

These vibrations may be observed by means of a light ray thrown upon small specula made of foil, attached to the malleus, incus, or to different portions of the membrana tympani, or may be recorded by a style tracing upon the smoked glass plate resting upon the carriage. The character of the style is a matter of considerable importance; it should be very light and firm, and sufficiently elastic to bend easily when its point is pressed upon the glass plate, and should be so stiff as to have but little vibration of its own. After a series of unsuccessful or but partially successful attempts made with styles of horse-hair, bristles, cane fibres, split bamboo, and so forth, the best style for the purpose was obtained by splitting long straws, scraping the inner cortical substance away, and separating single fibres; these could be obtained of any desired length, and so far have answered all that has been required of them.

A style of this sort is fastened to the descending process of the malleus or incus by means of glue or pitch, in a line with the long axis of the process and extending downward for a distance of from half an inch to an inch, according to the size of the specimen and weight of the style, and inclined slightly toward the direction in which the carriage moves. The plate of glass, smoked evenly over an ordinary oil lamp, and attached to the carriage by metallic springs, is placed in position under the style, the point of which is brought lightly in contact with the surface of the plate by adjustment with the ratchet-wheel.

The membrana tympani being set in vibration and the carriage, drawn by its weight, moving at a right angle to the excursion of the style, a wave line corresponding to the character and pitch of the musical tone sounded into the ear is traced upon the smoked glass. For preservation the smoked glass is then floated with mastic varnish and allowed to dry and harden, a process occupying from two to three days.

In its excursions the end of the style moves through the segment of a circle the radius of which is equal to the length of the style from its point of attachment at the centre of the membrana tympani. Where the excursion is a large one, therefore, as in sound-waves of considerable amplitude, or when the membrana tympani is set in vibration under pressure from without inward, thereby increasing the vibration of the end of the style, the tracing being made upon a plane surface, the extremes of the excursion, corresponding to the greatest height and depth of the waves, are indistinctly traced. The use of a glass having a curve corresponding to a circle of which the length of the style is the radius, as suggested by Prof. Graham Bell, obviates this difficulty.

The lamp-black is then floated from the glass by pouring collodion upon it and allowing it to dry. When dry, the collodion film may be removed with the tracing and varnished as in the preceding experiment, and the same glass used repeatedly.

The advantages in using the membrana tympani for the purpose obtaining phonautograms are evident upon comparison with the vario mechanical devices for accomplishing the same purpose, and a consid ation of its structure gives sufficient evidence of its adaptability as instrument for the purpose of recording the vibrations of a wide rang of musical tones of varying character.

The observations made by Professor Bell and myself, to be publishe later, have been directed to the repetition of the experiments of Donders and others, and particularly to the determination of the curves corresponding to the vowel and consonant sounds; in this connection also, the membrana tympani has been used as a logograph with very gratifying results. This method is further applicable to a determination of some of the acoustic properties of the membrana tympani itself, and in this direction has opened what has already proved to be a very interesting field for experiment. With so delicate a mechanism, and upon so small a scale, many of the tracings are of necessity microscopic, and as such are best exhibited by means of the magic lantern.

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NOTE ON THE ACTION OF LOBELINA ON THE CIRCULATION.

BY J. OTT, M. D., OF EASTON, PA.

The lobelina was prepared by Messrs. Hance Bros. and White, of Philadelphia, after the method of Proctor. It was a dark, oily liquid, of considerable consistency, tobacco-like taste and odor, with a specific gravity heavier than that of water. The strength of the solution used was four fifths of a drop of lobelina to one cubic centimetre, with a few drops of acetic acid, care being taken that the solution was absolutely neutral. The color of the solution was a rich, bright yellow, the resin adhering to the sides of the bottle and the stirring-rod. As the quantity was extremely small, only one toxic experiment was made, which is as follows: A frog, at 11.45 A. M., received two fifths of a drop of lobelina. At 11.49 A. M., sensibility was diminished; the frog could be easily taken up in the hand. At 11.51 A. M., respirations diminishing in number; motor power of anterior extremities less. At 11.53 A. M., sensibility considerably diminished; pupil contracting. At 11.57 A. M., loss of motor power in the posterior extremities; frog hops when pinched. At 12 M., unable to make coördinate movements; respiratory action now and then; seems dozing. At 12.13 P. M., heart laid bare; it beats sixty per minute; feeble reflex excitability, as evidenced by slight twitches of the extremities on pinching; no respiration. At 4 P. M., reflex action about the same as at 1 P. M.; pupil contracted. Next morning, frog had completely recovered.

— The number of my experiments was six, and all rabbits. The pulse and pressure were registered by ometer on a kymographion presenting a continuous roll of time was noted by an electro-magnetic apparatus, the cur- oken by a pendulum beating seconds. The time of the also recorded, as well as the period of the irritation of the special contrivance. The carotid artery was used for obser- vati nto the left jugular or one of its branches had been bound a canula, nto which the nozzle of a syringe accurately fitted, and through which the poison was injected towards the heart. Artificial respiration was kept up by an apparatus on the principle of Sprengel's blower.

Experiment I. — Rabbit. The pulse and pressure are always given for thirty seconds; pressure in millimetres of mercury.

Time.	Pulse.	Pressure.
	129	110
	Lobelina, four fifths of a drop.	
A. M. 11 20	65	64–130 Struggling.
11 21	142	120
11 21 30	114	150
11 22	110	140.
11 27	114	120
11 31 15	114	120
11 32 45	Vagi cut.	
11 34 9	167	152
	Lobelina, four fifths of a drop.	
11 34 39	182	156 Struggling.
11 35 30	125	80
11 36	109	46

As the injection of the poison caused struggling, which would prevent an accurate study of the action on the circulation, I used curare to paralyze the motor nerves.

Experiment II. — Rabbit curarized.

Time.	Pulse.	Pressure.
	110	110
	Lobelina, four fifths of a drop.	
P. M. 1 50	74	100–110
1 50 30	103	158
1 51	70	130
1 51 30	55	100
1 52	81	94
1 54	111	104
	Vagus irritated.	
1 56 30	97	96
2 2	144	118
2 3	Vagi cut.	
2 18 40	166	116
	Lobelina, four fifths of a drop.	
2 19 15	150	110–138
2 19 45		126
2 20 15		120

As section of the pneumogastrics removes all inhibitory action of central character, and as the action of lobelina on the pressure is the same as before the section, I infer that the poison does not act on the central inhibitory apparatus. To set aside the peripheral inhibition of the vagi, the poisons atropine and nicotine are used; the latter causing more complete and extensive paralysis of the inhibitory ganglia seated in the heart than the former.

Experiment III.—Rabbit, curarized; nicotine; vagi completely paralyzed, as tested by strong currents.

Time.	Pulse.	Pressure.
	126	40
	Lobelina, four fifths of a drop.	
P. M. 2 15	106	44–34
2 15 30	92	30
2 16	90	26
2 17 30	121	25
2 21	130	27
2 21 30	144	30

Experiment IV.—Rabbit; vagi paralyzed by atropia; curarized.

Time.	Pulse.	Pressure.
	125	82
	Lobelina, four fifths of a drop.	
A. M. 10 50	91	80–190
10 50 30	77	120
10 51	90	104
10 53	96	100
10 57 30	88	110
11 9	115	96
11 10 30	116	100
11 13 30	Nicotine injected.	
11 14	149	140
11 26 30	126	106
	Lobelina, four fifths of a drop.	
11 27 9	88	84– 96
11 27 39	90	96
11 28 9	91	96
11 29 30	105	100
11 30 30	108	100
11 37	107	104
11 44 40	104	106

It is seen that, after the paralysis by atropine, the pressure rises as before, but that after the exhibition of nicotine no rise of any importance takes place. To study the action of lobelina on the heart and its contained ganglia, it is necessary to divide the pneumogastrics, sympathetics, and depressors of Ludwig in the neck, and to sever the cord (which contains the accelerator and vaso-motor fibres) between the atlas and the occiput.

Experiment V. — Rabbit, curarized; all cardiac nerves in the neck are cut; cord cut between the occiput and atlas, verified by post-mortem; bleeding staunched by bovista.

Time.	Pulse.	Pressure.
	130	25
	Lobelina, four fifths of a drop.	
A. M. 10 40	106	30
10 40 30	91	40
10 45 30	124	30
10 46	140	32

The unimportant rise of pressure when lobelina is acting on a nicotinized heart, the statement of Rosenthal[1] that nicotine finally paralyzes the vessels, and the nearly double rise of pressure when the action of the vaso-motor centre is removed, caused a suspicion that there was an action on the peripheral vaso-motor apparatus. Happily, there is possessed in nitrite of amyl a poison which has the power to paralyze the peripheral action of the vaso-motor system, as has been proved by Brunton[2] and H. C. Wood.[3] In accordance with this fact, the following experiment was made.

Experiment VI. — Rabbit, curarized; nitrite of amyl administered by means of a flask whose stopper was so arranged that by turning it a quarter of a circle, one could at pleasure admit or exclude the amyl from the inhaled air.

Time.	Pulse.	Pressure.
	159	28[4]
	Lobelina, four fifths of a drop.	
A. M. 10 30	147	28
10 30 30	154	26
10 31 30	159	32[5]
10 34	153	30
10 30 30	167	32[6]
10 47		
	Lobelina, four fifths of a drop.	
10 48 49	160	28
10 49 19	156	30
10 49 49	157	28
10 50 49	144	24
10 53 19	162	32
11 30	136	46

As was anticipated, the rise of pressure was unimportant.

Confirmatory of the above action of lobelina is that of the aqueous extract of lobelia, prepared by Messrs. Tilden & Co., one grain of which equaled five and a half grains of lobelia. These experiments were made in Philadelphia, last summer.

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[1] Hermann, Lehrbuch der experimentellen Toxicologie.

[2] Ludwig's Arbeiten, 1869.

[3] American Journal of the Medical Sciences, cxxiii.

[4] One minute and twenty-nine seconds after end of inhalation of amyl.

[5] Amyl inhaled for thirty seconds.

[6] Amyl inhaled for nineteen seconds.

Experiment VII. — Cat; crural artery; Fick's manometer; respiration recorded by Marey's polygraph; poison injected through jugular toward the heart.

Time.	Pulse.	Pressure.	Respiration.
	75	123	
	Aqueous extract of lobelia, .04 gramme.		
A. M. 9 25	73	133	36
9 25 30	83	133	48
9 26	85	136	33
9 27 30	90	139	21
9 34	92	130	17
9 42	112	86	12
9 43	107	116	14
9 56	105	130	29

Experiment VIII. — Dog; vagi and sympathetics cut; crural artery; Fick's manometer; artificial respiration.

Time.	Pulse.	Pressure.
	91	110
	Aqueous extract of lobelia, sixteen grammes.	
A. M. 10 25 30	89	103
10 26 30	114	113
10 27	124	103 Struggling.
10 28	114	70
10 28 30	114	70
10 29	101	63
	Vago-sympatheticus irritated.	
10 30	95	50
10 48	92	90
	Aqueous extract of lobelia, sixteen grammes.	
10 48 30	92	100 Struggling.
10 49	123	50
10 57	93	86[1]

Reasoning from the above data, the inference would be that lobelina in small doses increases the blood pressure by acting as an excitant on the peripheral vaso-motor system. The pulse seems temporarily reduced and then increased; the necessarily limited number of our experiments precludes saying more about it. I will state here that I have found lobelia to be mainly a respiratory poison, and that in the cat it greatly reduces the temperature. The above experiments on lobelina were made in Professor Bowditch's Physiological Laboratory at Harvard Medical School; to him I am indebted for opportunities of study and many highly important suggestions in the investigation.

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[1] The inhibitory power of vagus still remains.

RECENT PROGRESS IN THE TREATMENT OF CHILDREN'S DISEASES.

BY D. H. HAYDEN, M. D.

INCONTINENCE OF URINE.

IN the meeting of the Dublin Obstetrical Society held June 13, 1874, a paper entitled "Remarks on Incontinence of Urine in Children" was read by Henry Kennedy, A. B., M. B., Vice-President College of Physicians, and Physician to the Whitworth Hospital, Drumcondra. From a report in the *Dublin Journal of Medical Science* for July, 1874, the following abstract is taken: —

Before speaking of the immediate subject, reference is made to the marked differences, "contrasts," which exist among infants at and after birth, manifested not only in what might be called externals, but in the internal functions as well; for instance, the susceptibility of the stomach and bowels, and the ease or difficulty with which the act of swallowing is performed. So, too, some are essentially awkward in all their ways and actions, and no education will cure them; some are awkward in their powers of speech, and will continue to speak "thick" years after others can speak perfectly. Observation shows that girls speak earlier and more perfectly than boys; and it is well ascertained that stammering is much more common among males than among females. It is among these diversities in the mode of performance of natural functions, which may be either of a temporary or of a more permanent character, that the author would place the distressing affection now in question. What the exact cause is, it would be hard to determine; but it would seem to be a want of nervous influence in the sphincter of the bladder, or probably it might be better expressed by saying that the proper balance of power between the retaining and the expulsive powers is lost for the time. In the great majority of instances the affection is intermitting, or, if not actually intermitting, is at least worse at one period than at another; it is not a peculiarity of a delicate constitution, being as often seen in robust children; in most of those thus affected, however, there is found "a marked mobility of the nervous system." In connection with this infirmity of the bladder it is worth noting how rarely the bowel is implicated; yet this does sometimes occur, intermittingly, as it were; though the author has never seen it to the same degree as occurs with the bladder, nor has he ever been consulted about it. The latter remarks do not refer to what often occurs in the progress of the fevers of children, but to what takes places when the child is, to ll appearances at least, in good health.

The affection requires no description. The child wets the bed once, twice, or even three times during the night. Nor is the infirmity confined to the night, as possibly many suppose. It has been known to occur in the day-time, though cases of this kind are rare. Boys are more frequently affected than girls; but the latter are by no means exempt. The duration of the complaint is most uncertain. In severe cases it has continued till the change from boyhood to manhood took place; and in a very obstinate case in a female, under the author's observation, the infirmity continued up to womanhood, and ceased only when the patient married.

The treatment of this affection may be divided into two kinds: the mechanical and the medical. Amongst the former must be noticed what was suggested by Sir D. Corrigan a few years back, the application of strong collodion to the orifice of the prepuce, thus preventing the escape of the urine for the time. The difficulty lying in the way of this procedure is that the urine would not be retained in the bladder, but would make its way into the prepuce, that is, supposing the orifice to be so glued as to keep it there; and Sir Philip Crampton relates a case in which, this plan having been adopted, the prepuce was literally turned into a bladder, an infirmity from which the sufferer was not free as long as Sir Philip knew him. A more feasible plan with boys is an application of a piece of bougie to the under surface of the penis, keeping it there by means of sticking-plaster. There is great difficulty in the way of carrying out this method of treatment. It has of course to be used at night, and to be taken off in a few hours, and entails close watching. Moreover, it gives rise to some pain. Still the plan is one of which we should not lose sight. The pressure should be at the root of the penis, and it should not be undertaken except under medical supervision. The object is to break the wrong habit of the system; and, if this be done for three or four nights, there is a strong probability that the proper function of the bladder will be restored, and the infirmity cured. It is when other measures have failed that this one should be tried.

Another means which has been proposed for treating this affection, and which would come under the head of mechanical measures, is the position of the patient whilst in bed. It has been said that if he be kept on his side there is not that tendency to empty the bladder which exists in the dorsal decubitus; and this has been explained by supposing that in the latter the urine irritates the trigone of the bladder, and so causes the organ to empty itself. Before adopting this idea, we ought to be sure that the statement is true. To the author it seems very unlikely, and he cites one instance where it was not the case, as the patient, a boy, wet the bed, no matter in what position he lay. Besides, it is hard to understand how any quantity of urine can be in the bladder without coming in contact with the trigone.

The medical treatment of the affection divides itself into general and special measures. Amongst the former will be placed the regulation of the quantity of fluid to be taken, as well as the time of the day when it is used. There can be no doubt that, if any over-quantity be taken towards evening, it must greatly increase the tendency to the complaint. Of the fluids used, tea has an injurious effect, and should be avoided. A plan which, when it can be carried out, is always of use, is to teach the patient, during the day-time, to retain the urine as long as is possible, although, owing to the age of some of the patients, this measure is not always available.

Amongst the medical means employed for the cure of the affection, blisters must be mentioned. When they succeed, the success is immediate, and the author does not approve of applying them again and again as recommended by some. There can be no doubt that, applied to the sacrum, they have been sometimes successful, and cases will occur where we will be driven to try every resource, and this amongst the rest. Of internal remedies, the tincture of the perchloride of iron has been specially praised; but it has not answered the author's expectations, and he doubts if others have found it more beneficial. Some form of the cold douche, however, is a valuable agent; and if the disease be checked, even for a time, this measure will probably prevent a relapse, which we know is so likely to occur.

Of specific medicines used for this infirmity, the author mentions two. With regard to hydrate of chloral he has no experience to offer. It has been stated, however, that cases have been cured by this medicine; and it is, therefore, worthy to be kept in mind.

We possess in the second medicine, belladonna, a most effectual remedy. Although a very potent drug, there is one strange feature about it, as regards children, and that is the little susceptibility they show to its action; and it may be considered as established that they tolerate it very much better than adults. By gradually increasing the dose, very large doses may often be given. The author's experience in the use of belladonna in this disease comprises two cases, in both of which the results of the treatment were very satisfactory.

Over-acidity of the urine and worms, mentioned by West and others as supposed causes of the complaint, have never come under the author's notice as such. Worms are a much more common complaint than incontinence of urine; yet he has never seen an instance where the two were combined; moreover, the urine has not been over-acid. Children are often sufferers from dysuria and frequency in passing water; but this is a very different affection from the infirmity in question.

In conclusion, the four points which seem to hold out the best prospects of curing this complaint are, —

1. The training the child to retain its water, in the day-time, as long as possible.

2. The use of the cold douche.
3. The moderate use of fluids towards night, and total abstinence from tea.
4. The internal use of belladonna, given in increasing doses till its specific effects are produced.

Dr. Darby knew several cases where the disease was hereditary. He had made use of the treatment recommended by Sir D. Corrigan in six cases, and it was perfectly successful. He had not seen many females with this affection, but he believed it continued in females to a much later period of life than with boys; and in those cases which were hard to cure, he believed blistering was the best mode of treatment. He remembered a case of whooping-cough where the parents consulted a Lady Bountiful, who had a panacea for the disease, consisting of carbonate of potash, cochineal, and large doses of tincture of cantharides. The cantharides was pressed till it produced strangury; and the result was that the child was cured of incontinence of urine as well as of the whooping-cough. Dr. C. F. Moore and Dr. Darby doubted the propriety of giving belladonna to children in the large doses mentioned by Dr. Kennedy.

Dr. Churchill thought this very obstinate disease in some cases was kept up by an acid condition of the urine, and he had seen such cases benefited by the administration of alkalies. He had seen the complaint ameliorated by belladonna, though not in such large doses as Dr. Kennedy recommends. He had also seen it benefited by cold douches at night. He believed the best treatment to be watchfulness, the child being carefully watched all night by an experienced nurse-tender. He found, by observation, that the incontinence recurred in several instances when the patient was in a deep sleep; but in the majority of cases it preceded waking. It is probable that some of these cases may arise from want of proper tone of the bladder; and such instances might be benefited by strychnine. He had seen several cases of incontinence of urine in girls. He knew one, now twenty years of age, in whom the trouble still continues.

Dr. Kidd thought if the children be made to abstain from fluids, their urine becomes more concentrated and more irritating; and thus the tendency to wet the bed is increased. There is another point that should not be overlooked, namely, that sometimes this incontinence of urine is a symptom of epilepsy. In many cases of epilepsy, when the fits only occur in the night, their occurrence is only known by the bed being wet. Another important matter, with regard to the treatment, concerns the kind of bed on which the patient lies. Of all devices, india-rubber sheeting is the worst. The best plan is to put the patient to sleep on a bed of good wheaten straw; the water trickles through it at once, and the patient is saved a great deal of discomfort. At the asylum in Sligo, where there are many dirty patients in the habit of wetting their beds, they use a canvas bed — simply a stretcher made of some peculiar canvas manufactured specially; this is stretched over two wooden supports, and the patients lie thereon, with two blankets under them doubled and meeting at the hips, so that the upper one is without the range of the wet, and the lower one is easily removed. One other point should be noticed, and that is the frequent association of this condition with ascarides in the rectum. Some of these cases he had seen benefited by the injection of a solution of common salt, which removes the ascarides and allays the irritation. He thought the tincture of the muriate of iron deserved more credit than it got from Dr. Kennedy, as a remedy in the affection.

The vice-president (Dr. Atthill) said that as the causes of incontinence were numerous, the remedies must be numerous also. Dr. Churchill had alluded to punishment as a remedy sometimes adopted in these cases. Nothing could be more cruel or injurious than such a course. Very few patients wet their beds intentionally. As to the time at which the urine is voided, no doubt it sometimes occurs during the act of waking, and sometimes in the most profound sleep. He thought that ice applied to the spine might sometimes prove of use.

Dr. T. More Madden divided the cases into two classes, those which were preventable and those which could not be prevented. The former were the most numerous. In them it was not a disease, but the result of carelessness on the part of the nurses and of the children themselves, and could be cured by simple attention to cleanliness. He attributed the good effects of a blister over the sacrum to the fact that the patient was thus prevented from lying on his back. He disapproved of the mechanical treatment which had been suggested. He had found both tincture of perchloride of iron and tincture of belladonna useful, especially in combination. If they blistered the child's sacrum, put it on tincture of iron and belladonna, and gave no salt in its food, they would have very few cases of incontinence of urine.

Dr. Kennedy, in reply, said that he had seen none of the disagreeable consequences of belladonna alluded to by Drs. Moore and Darby. He was glad to hear that Dr. Darby had had such successful experience of the collodion process, and hoped he would publish the particulars of the six cases in which he had employed that method.

(*To be concluded.*)

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

W. L. RICHARDSON, M. D., SECRETARY.

Rachitic Cat. — DR. EDES exhibited the skull, scapulæ, humeri, pelvis, and femora of a cat. A large tumor arose from the upper jaw on each side, apparently from the alveolar process posterior to the canine teeth, involving the molars. The angles of the lower jaw were enlarged, softened, and hollow. The skull was much thickened and softened, the vault of the cranium having at least three times its normal thickness, but could be indented with the finger-nail. The scapulæ were of four or five times their normal thickness, and of spongy consistency. The humeri, pelvis, and femora were in a similar condition, although not quite so striking in appearance as the shoulder-blades. The femora fractured easily just below the trochanters. The microscope showed only rarefaction of tissue without abnormal elements. The body was well-nourished and there was no disease of the internal organs.

The cat from which the specimens came had fed ravenously upon meat from an early age, and when first observed would not touch milk, although it afterward took a moderate quantity. It was noticed to be averse to jumping down, although it would climb quite well; it ran up-stairs, but came down carefully; it sometimes appeared in pain from being handled. It was put to death on account of the appearance of the tumors and the difficulty occasioned by them in eating. The precise period of their origin is not known.

The case is interesting in connection with experiments which have been made upon the production of rachitis by premature weaning, and other variations from a normal diet in growing animals. M. Guerin[1] is said to have rendered young dogs rachitic by substituting raw meat for their mother's milk. M. Tupier, however, from whose paper the above statement is borrowed, did not succeed with young cats; and he concludes that diet alone is unable to cause an abnormal progress of ossification.

The bones exhibited cannot be regarded as strictly rachitic, inasmuch as there is no trace of an over-formation of cartilage or bone; they are rather to be referred to a condition like the osteomalacia of the human race, which is, however, chiefly a disease of adult life.

Cancer of the Right Supra-Renal Capsule. —DR. FITZ showed a specimen o[illegible] cancer of the right supra-renal capsule from a patient of Dr. Shattuck. The o[illegible] gan was enlarged to the size of a peach, intimately adherent to the liver abo[illegible] and the kidney below. The cut surface was traversed by bands of dense fibro[illegible] tissue surrounding patches of red, yellow, and gray, in part softened, in part tolerably firm consistence.

The adjoining portion of the liver contained a nodule of the size of a mar[illegible] apparently of more recent origin. The disease had extended into the tiss[illegible] surrounding the pelvis of the kidney, had compressed the renal artery v[illegible] decidedly, and had invaded the walls of the inferior cava, projecting sligh[illegible] from its inner surface. The mucous membrane of the pelvis of the kidney [illegible] the upper inch of the ureter was likewise infiltrated to a moderate degree; [illegible] surface was ulcerated.

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[1] Archives de Physiologie, January, 1874, page 108.

The right kidney was considerably diminished in size, dense, of a grayish-white color spotted with yellow, and contained relatively little blood. The capsule was thickened and quite adherent. On section, the cortical portion diminished in volume, relatively homogeneous, moderately translucent; that between the pyramids softer, yellow, opaque, and extensively fatty. The kidney was intimately adherent to the spine, the adjacent vertebræ being of considerably diminished density; the intervertebral disks were softened. There was no evidence of extension of the new growth into the vertebræ.

A microscopical examination showed that the tumor was composed of a fibrous stroma, often very dense, surrounding spaces varying considerably in size, which contained large cells of irregular shapes but all of an epithelial type, and not separated from each other by any perceptible intercellular substance. At the vesical orifice of the right ureter, a calculus of the size of a cherry stone was found. The ureter was still pervious and was not dilated beyond the situation of the calculus.

The patient from whom these specimens came was a female, aged forty-six years. She entered the hospital on the 29th of August, 1874, having been obliged to give up her work as cook some three weeks previous, though she had been ailing for a longer period. Pain and weakness were her chief symptoms, the former being referred to the epigastrium, back, and lower part of scapulæ. On taking a long breath, pain beneath the lower part of the sternum was complained of. Repeated examinations of the urine gave a specific gravity of about 1020°, and an acid reaction. There was no albumen; under the microscope pus and blood corpuscles were found, in moderate quantity.

During the last few weeks of her life, pains in the back and left side, extending around the chest, were particularly grievous. She died October 31, 1874, about two months after her admission to the hospital.

Papilloma of Bladder. — Dr. BOLLES reported the case. "Miss G., an active little old woman of eighty-one years and about a hundred pounds' weight, first came to see me twenty months ago because she had been suffering from hæmaturia for six weeks or so. There was no pain, no loss of appetite, absolutely no symptoms but the loss of blood and consequent anæmia. The urine contained at that time from one sixth to one tenth part of bright red blood, intimately mixed with it at first but soon settling into a clotted layer. There were mingled in the blood some pus cells, or cells like them, and a few similar in appearance but of unusually large size. I did not, however, feel sure of their being different from the others; at least could not recognize them as being characteristic of anything else.

"From this time until about eight weeks ago she was not formally under my care, although from seeing her frequently I know that she was at no time very ill, that the bleeding continued in small quantity most of the time, and that at several times it was very severe for some consecutive days or weeks. Her strength and color, of course, indicated its presence or absence. She occasionally had a little diarrhœa during the past summer, and a little pain in the lower part of the bowels, both easily controlled. There was no swelling or marked tenderness of the bowels. Shortness of breath and palpitation were occasional troubles, as well as loss of appetite.

"Eight weeks ago she became so ill as to consult me again. She had then passed urine as red as blood for some time, and in addition was attacked with sharp diarrhœa and griping abdominal pains. The palpitation and dyspnœa were distressing at times. The pulse was not frequent, but quick, feeble, and irregular. There was a loud, variable, sometimes musical murmur with the heart's impulse, heard at the apex and also above the clavicle. She was given digitalis, tannic acid, and an occasional opiate. After a few days the diarrhœa nearly disappeared, but the hæmorrhage continued unabated, and she took her bed six weeks ago and never left it subsequently. The urine at this time contained about one sixth of its bulk of bright fresh blood, soon settling in a distinct, soft clot. Among the numerous blood corpuscles and white cells were a few epithelial cells, smaller than those of the bladder and with larger and more striking nuclei; still there were intermediate forms between them, and I did not see anything characteristic among them.

"From the long-continued hæmaturia, the absence of symptoms referring to the kindeys and uterus, the very moderate amount of pain, and the slow advance of the disease, I was convinced that it was villous cancer or papilloma of the bladder, and gave that diagnosis to the friends.

"The rest in bed did more than medicines toward stopping the hæmorrhage, and for a week or two it either ceased entirely or greatly diminished, and there seemed to be a chance of her getting about again. But the bleeding afterward returned and continued to the end. Her dyspnœa was very oppressive at times, and one of her principal sources of distress; but in addition there were several recurrences of the diarrhœa, with muco-purulent-looking but never bloody discharges, paroxysms of severe pain in the hypogastrium, and neuralgic pains occasionally all over the body, more especially in the knees and legs, causing her to writhe and groan with agony. There was during most of the time the tossing, restlessness and sighing, moaning, and dreadful thirst of excessive bleeding, with partial stupor occasionally, and at the last a disinclination to swallow anything and an apparent inability to do so. Her mind generally remained clear until it gradually failed by increasing exhaustion, from which she died. There was a gangrenous odor for about three days before death."

Autopsy. There was quite a thick layer of yellow fat in the thoracic and abdominal walls surprising in view of the apparent emaciation. All the viscera were anæmic excepting the liver. The heart was small, firm, contracted, with atheromatous changes in and above the aortic valves, and a dilated or unusually large vessel for two or three inches above them. The stomach and intestines were nearly empty, and in the rectum were a number of small, round, shallow ulcers. The kidneys were apparently somewhat granular. Upon the posterior wall of the bladder was a papilloma apparently surrounding the left ureter; the growth was nearly as large as a horse-chestnut; and upon the anterior wall of the bladder was another as large as a hazel-nut. These were both attached by narrow bases with no thickening of the vesical wall beneath them, and floated free in the urine. The larger piece was partially sphacelated. Vessels communicating with the tumor were greatly enlarged.

Microscopically the growth consists of thin foliaceous expansions of connective tissue and papillæ, containing loops of large and full vessels; the epithelium is cylindrical and various, but in most places macerated away, leaving naked or almost naked loops of vessels.

Case of Circumscribed Analgesia. — DR. J. J. PUTNAM demonstrated a case of circumscribed analgesia of the skin, coming on after an attack of typhoid fever. The patient was a boy, seventeen years of age, healthy and muscular. The fever had occurred two years before, and had lasted about four weeks. The insensibility of the skin had been noticed soon after, the precise interval not lying in the patient's memory. He had been induced to seek advice recently, mainly because suffering much from a sense of coldness of the left hand, arm, and side, when an examination disclosed the following condition: The skin of the left hand, arm, left half of neck and trunk, and part of left side of face, was almost, if not quite, insensible to pain, even that produced by using a wire brush connected with a powerful induction battery. The limits of the affected region were quite sharply defined, especially about the face and head, where they included the skin of the ear, the angle of the jaw, and part of the occiput; on the trunk the dividing line corresponded with the median line of the body, front and back, and below nearly with the lower border of the ribs; inclosing, in short, pretty accurately, the cutaneous distribution of the cervical and brachial plexuses, the intercostal and the posterior branches of the dorsal nerves. The muscles throughout this region were finely developed, and the grip of the left hand, as measured with the dynamometer, was quite equal to that of the right.

The sensibility to touch, though somewhat impaired, was much less so than that to pain. For example, a light touch with the finger or with a camel's-hair brush, upon the skin of the left hand, was not felt; but, especially towards the radial border of the hand, the impression made by drawing the finger or brush rapidly over the surface was recognized, although generally referred not to the skin but to the deeper parts of the hand. Also the prick of a pin was felt as the touch of a blunt instrument.

The sense of temperature was greatly diminished, so that when the hand was plunged into water as hot as could be borne by a healthy person, it was not recognized as hot at first, but only after some moments; further, the patient said that when the face was exposed to a cold wind it was not felt over the affected region.

Besides the fact that it had suffered a number of slight injuries unrecognized when inflicted, the skin of the hand showed evidence of certain nutritive changes of a hypertrophic character. The fingers looked broader than those of the other hand, and the wrinkles were somewhat deeper. In the palm of the hand, over the metacarpo-phalangeal articulation, were two or three thick, callous patches, which were absent from the other, the chiefly laboring hand, and which the patient said had been present for a very long time, often having fluid beneath them. There was, and had been, nothing unusual in the appearance or in the growth of the nails.

In speaking of the pathology, Dr. Putnam said that the lesion could hardly be one affecting the nerve filaments of the insensible region at their peripheral distribution, the district was so large, and exposed in its various parts to such different atmospheric conditions; the absence of motor disturbances in the presence of the marked sensitive changes, among other reasons, excluded an injury to the mixed nerves in their course; that only the posterior roots of so many nerves should have been affected alone was incredible; the lesion must therefore be located somewhere in the spinal cord or brain, and in the sensitive tract alone. In the cases hitherto reported of hemianæsthesia from cerebral disease, an entire half of the body has almost always been affected, and the sense of touch with, or even to a greater degree than, that of pain. Furthermore they have been accompanied with other symptoms of cerebral origin, and not with nutritive changes in the skin. It was considered as conceivable that a small and defined lesion in the spinal cord might have severed the nervous tracts carrying the sensations of pain from the region affected to the brain; the more so since the experiments of Schiff, and pathological observations by Charcot and various others, in cases of posterior spinal sclerosis, give reason for thinking that the sensation of pain is conducted upward through the gray matter of the posterior cornua, while that of touch, and of the position of the muscles passes along the posterior columns.

Dr. Putnam also suggested that the sensations of touch might be conveyed partly by sensitive nerves of the muscles, which recent experiments have pretty conclusively shown to exist. In that case the impressions felt would be dimly transmitted to them through the overlying tissue, as Létiévant has shown to occur with neighboring cutaneous nerves, when a peripheral injury has destroyed any one supplying a certain region. In favor of this view was the fact, observed by the patient himself, that when a pin is thrust into the arm, it causes no pain until it has penetrated through the skin to the parts below, when slight pain is felt.

The slight nutritive changes in the skin of the hand might be due to changes in the gray matter at the roots of the corresponding nerves (brachial), but except for that the lesion might be supposed to lie exclusively in the upper cervical region.

Circumscribed anæsthesia, as well as various other special nervous lesions, has frequently been observed after typhoid, and the pathological changes, so far as they have been observed, have occurred generally in the spinal cord. As to the nature of the lesions observed, Westphal and others have found, in a number of cases, small spots of inflammation, or, at a later period, sclerosis, scattered throughout the cord.

THE PROPOSED SURVEY OF THE COMMONWEALTH.

The Legislature of Massachusetts having directed the Board of Education to inquire into the expediency of a new survey of the State, the subject was referred to a committee of the board, whose report is now before us. From this we learn that the last general survey of the State closed in 1840. The great advances made by science since that time place our own State far behind others in this matter. It is proposed to make a topographical, geological, and biological survey of Massachusetts. The advantages to be derived from such a survey in laying out railroads, in determining the sources from which an adequate supply of water may be obtained for our factories and large centres of population, are sufficiently obvious; and what is especially important, such an undertaking will consider the interests of the whole people and not of any one locality, and will save the necessity of independent surveys. It is believed that a geological survey will develop mineral wealth which will alone repay the entire cost of the undertaking. This and the biological survey will prove of great value to the agriculturist in conveying information as to the nature of the soil in different parts of the State, what plants will thrive the best in different soils and how these soils may be most economically worked, how pests of insects may be avoided, and how worn-out lands may be used. In order that the expense may not be too severely felt, it is recommended that the undertaking be extended over a period of fifteen years.

A survey conducted upon this plan would prove of inestimable value, but its value would undoubtedly be greatly enhanced were the State Board of Health to coöperate with those in charge of the undertaking, and a sanitary survey be conducted at the same time. Indeed, many of the problems to be solved by such an enterprise would be so intimately connected with sanitary matters that their solution could hardly be satisfactorily accomplished without some consideration of the questions of hygiene involved; on the other hand, the Board of Health would have an opportunity which is rarely placed in the hands of health officers to investigate complex and difficult questions on a thoroughly scientific basis.

The work already done by the Board of Health has, it is true, covered some of the ground that would be thus gone over; but carried out on this comprehensive plan its practical value would be greatly increased, while at the same time it would undoubtedly add greatly to the interest and value of the general survey.

MEDICAL NOTES.

— We are requested to state, in answer to inquiry, that an essay on pathological anatomy as connected with clinical observation, embodying original researches, would be considered by the committee on the Warren Triennial Prize as coming within the limits prescribed, and as suitable for competition.

— The attention of gentlemen who desire to become members of the Massachusetts Medical Society is called to the advertisement of the Censors for the Suffolk District, in the present number.

— During the year 1873–74, 14,992 lbs. of chloral were imported into the United Kingdom of Great Britain and Ireland.

— The last number of *The Doctor* gives notice that it will publish the names of subscribers who neglect to pay their subscriptions.

— We are indebted to Dr. C. B. Porter for calling our attention to some anatomical errors which we overlooked in Dr. Seeligmüller's paper on "Infantile Paralysis acquired during Delivery," of which we gave an account in our number of January 28th.

We read in the last paragraph, page 110, "The abnormal rotation of the upper arm depends upon paralysis of the infra-spinatus muscle, and therefore of the subscapular nerve that supplies it." The infra-spinatus is supplied by the supra-scapular nerve. Again, "The infra-spinatus alone rotates the arm outwards." The arm is rotated outwards by the infra-spinatus and teres minor and the latter is supplied by the circumflex nerve.

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SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

OPERATIONS were performed under ether in the following cases during the week ending January 16: —

1. Deformity of face from lupus. 2. Anchylosis of elbow-joint. 3. Necrosis of tibia. 4. Extensive cellulitis of hand and fore-arm. 5. Necrosis of femur with abscess of knee-joint. 6. Necrosis of tibia. 7. Cyst of lip. 8. Fistula in ano. 9. Hare-lip, infantile. 10. Deformity of face. 11. Hare-lip in adult. 12. Compound comminuted fracture into elbow-joint. 13. Deformity of face from lupus. 14. Large splinter in foot. 15. Wens of back and scalp. 16. Four abscesses.

4. *Cellulitis and Necrosis following a slight Punctured Wound; Amputation.* — A young man tried to pull down the upper sash of a window five weeks ago; his left hand slipped and struck against a needle sticking in the lower sash. The needle entered the palm of the hand near the wrist and was extracted by the patient. About a week after, the hand began to swell, and at last became infiltrated with pus. On entering the hospital, a tourniquet was applied to the brachial artery, and the sinuses which had riddled the hand and entered the wrist-joint were laid open freely. All the carpal and a portion of the metacarpal bones were found necrosed; they were all removed and counter-openings made to facilitate the drainage of pus, which had burrowed in every direction. During the six following days, the hand and wrist became so disorganized from extension of the inflammatory processes, that any further attempt to save the limb obviously involved too great a risk of life. Amputation was performed at the lower third of the fore-arm by Dr. Bigelow.

5. *Necrosis of the Femur; Amputation of the Thigh.* — A boy of sixteen had a small necrosis of the lower part of the shaft of the femur, with an opening above the ham; the sinus had been dilated and the escape of pus was free. Some weeks after, the knee began to swell; and in the course of ten days it became evident that an abscess was forming over the internal condyle, which, owing to the patient's prostration, it was feared might have communicated with the joint. This proved to be the case; the finger readily passed into the joint when the abscess was evacuated. The limb was therefore amputated just above the sequestrum, at the junction of its middle and lower thirds. Examination showed that the pus near the ham had entered the joint through a small sinus at its posterior surface, in spite of the free opening which had been made near the necrosed bone to give it exit. As usual in this hospital for the last

twenty years, when it has been thought important to save blood, a dry operation was insured by a bandage tightly applied to the limb and removed after the tourniquet had been tightened.

9 and 11. *Cases of Hare-Lip.* — Dr. Bigelow remarked that the surest and best way of avoiding a notch in the lip is to excise completely its lateral halves, and that an attempt to turn down or otherwise to utilize the detached portions is apt to result in an irregularity of the lines of mucous membrane, noticeable through life.

12. *Compound, Comminuted Fracture into Elbow-Joint.* — The patient was a young adult, and the lesion was due to a railroad injury. The soft parts were extensively lacerated, the elbow-joint torn open, and the bones comminuted at a considerable distance from the joint. Dr. Cabot believing that it was better in any case to amputate if possible even just below the head of the bone than to excise the latter, thus opening the sheaths of the muscles inserted into it, amputated the arm at about an inch and a half below the shoulder-joint.

13. *Rhinoplasty.* — A colored woman, twenty-seven years of age, had completely lost her nose by scrofulous lupus, now healed. Dr. Bigelow made a new nose from the forehead, in the usual way. The plastic power of this patient had been previously tested by an experimental operation on the upper lip; and although the result did not promise as well as was hoped, the new nose seems to have perfectly united five days after the operation.

H. H. A. Beach, M. D., Surgeon to Out Patients.

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SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

The principal operations performed during the week ending Friday, January 22, 1875, were the following: —

1. Amputation of thigh. 2. Amputation at the ankle-joint. 3. Amputation of thigh. 4. Perineal section. 5. Cellulitis of foot. 6. Divulsion of stricture by Holt's dilator. 7. Fistula in ano. 8. Abscess of thigh. 9. Cancer of scrotum. 10. Caries of hard palate. 11. Amputation of fingers. 12. Necrosis of tibia. 13. Tonsillotomy. 14. Removal of calcareous deposit from cornea.

1. *Amputation of Thigh for a simple Dislocation of the Knee backwards, with Rupture of the Popliteal Artery, and large Traumatic Aneurism.* — About two hours before being brought to the hospital, a middle-aged man was kicked on the right leg by a mule. The skin was not broken, and there were only two or three slight abrasions over the anterior surface of the tibia. There was a large swelling in the right popliteal space, extending down to the calf of the leg. The measurements around the knee and calf were respectively three and two inches larger than those of the corresponding parts of the left leg. The skin over this tumor was full, tense, and livid. No pulsation could be felt in either the anterior or posterior tibial arteries, and the limb was colder than its fellow. The ligaments about the knee-joint were so extensively lacerated that the head of the tibia very readily fell back into the popliteal space. The patient

was in fair condition, although he was said to have been partially intoxicate at the time of the accident.

The enormous effusion which had taken place in the short space of tw hours, together with the ecchymoses, and the sacculated, fluctuating feeling o the ham, rendered it evident that a large extravasation of blood must be present. Whether this had come from the rupture of the popliteal vein or artery Dr. Cheever felt unable to determine, since the absence of pulse in the tibia vessels might be due either to the pressure under the fascia of a large effusio from the vein, or to a break in the main artery itself. The thinner wall of th great vein would seem to render that vessel more likely to be torn than th artery.

Traumatic aneurism of such magnitude requiring immediate interference t check the bleeding, the patient was etherized, and a three inch vertical cu made over the centre of the ham. A rush of blood and clots immediatel followed, and on sweeping this out with the hand, the whole popliteal spac was found lacerated, with the outer head of the gastrocnemius torn away, th entire expansion of the semi-membranosus fascia, which lines the back of th articulation, ruptured, and the knee-joint gaping open. It being evident tha death would result from delay, Dr. Cheever immediately amputated the thig at the middle third by the circular method. The arteries were tied and th wound closed with sutures. An examination of the amputated leg showed th following lesions: The popliteal artery was torn completely across, opposit the head of the tibia, and the ends had retracted two inches. The vein an nerve were uninjured. The crucial ligaments were separated from the tibia The posterior ligaments were completely divided, and the lateral partially The semi-lunar cartilages were dislocated, and a small piece of bone was chippe from the head of the tibia. The outer head of the gastrocnemius was tor from the femur. All the tissues in the ham, down to the calf, were severel bruised and lacerated, and infiltrated with blood.

Since the amputation, on the 17th inst., the patient has gone on well.

2. *Amputation at the Ankle-Joint.* — Five weeks ago the patient, a youn man, walked eight or nine miles in wet boots. Both feet were frozen, th right one only slightly. The left became gangrenous up to the tarso-metatars articulation. There was left available neither skin nor flesh to make a cove ing for any amputation short of the ankle-joint. The choice then lying betwee Syme's, Pirogoff's, and other forms of tibio tarsal disarticulation, Dr. Cheev performed "Soupart's" amputation, in the following manner: The circul tion having been controlled with a piece of rubber tubing, an incision w made from a point just behind the scaphoid tubercle, downward to the midd of the sole of the foot, thence backward over the centre of the heel to a poi an inch and a half above the insertion of the tendo Achillis, thence outwa below the external malleolus, and forward, to meet the original incision. T ankle-joint was opened on the external lateral surface, the foot strongly pr inward, and carefully dissected from the long internal flap. The knife w made to hug the os calcis to avoid the posterior tibial artery. A thin slice bone, including both malleoli and the articular surface of the tibia and fibu was removed. The arteries were twisted, and the wound was closed with w

sutures. The flap was amply sufficient to cover the end of the bones, without any strain whatever.

3. *Amputation of the Thigh.* — A shoemaker, thirty years of age, while drunk, fell off a train of cars, two wheels passing over the right leg. When brought to the hospital, a few hours after the accident, he was suffering moderately from the shock. Pulse 100, skin cold, no hæmorrhage. The leg was broken in several places up to the middle of the thigh, and the soft parts were literally crushed, with the exception of a strip of skin on the inner side of the thigh, about eight inches long by five inches wide, and lying just below the groin. Dr. Cheever amputated the thigh through the trochanters, covering the stump with the above-mentioned piece of skin. The hæmorrhage was controlled with rubber tubing, passed first around the pelvis, and then around the thigh, in the form of a spica-bandage. Scarcely any blood was lost during the operation; but in spite of free stimulation, the patient sank and died in about ten hours.

4. *Perineal Section.* — A young man had gonorrhœa three years ago, followed in six months by a perineal abscess, and fistula. For several months, a large part of the urine has been discharged from the sinus, although the stricture, which is in the membranous urethra, admits a No. 9 sound. The orifice of the fistula is an inch and a half in front of the anus, and an inch to the left of the median line. Dr. Thorndike opened the urethra upon a staff at the internal orifice of the fistula, and divided the stricture. The inner wall of the sinus was next divided, the indurated tissue removed, and the fistulous tract touched with nitric acid.

Both fistulæ operated on by Dr. Thorndike several weeks ago are entirely well. One was perineal, following lithotomy, treated as above. The other was recto-vesical, treated by a plastic operation and the galvano-cautery.

9. *Cancer of Scrotum* — The patient is a laborer, thirty-four years old. A year ago a small wart made its appearance on the anterior part of the scrotum, to the right of the raphé. It grew until at the time of the operation it had become a large fungous mass, three inches in diameter, extending on to the penis. There was no pain, no glandular complication, and no attachment to the deep structures. Dr. Thorndike removed the growth by a free dissection. The wound was easily closed, owing to the redundancy of the skin of the parts.

GEO. W. GAY, M. D.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending January 30, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: influenza, bronchitis, pneumonia, rheumatism, and whooping-cough.

In the Connecticut Valley: bronchitis, influenza, pneumonia, rheumatism, whooping-cough, and diphtheria. The latter disease prevails in the northern part of this section. Measles, though not generally prevalent, is increasing.

In the Midland section: bronchitis, pneumonia, influenza, measles, scarlatina (generally mild), and croup. Small-pox in the Blackstone Valley. Influenza is reported as exceedingly rife in some sections. Measles is increasing.

In Middlesex and Essex: influenza, pneumonia, bronchitis, scarlatina, rheumatism, whooping-cough, and measles. In the northern parts of this section scarlatina prevails extensively. A case of cerebro-spinal meningitis in Wakefield is reported.

In Boston and its suburbs: bronchitis, measles, influenza, pneumonia, rheumatism, scarlatina. Nearly all these diseases are increasing in prevalence. Croup and diphtheria are also spreading.

On the Cape and among the islands: bronchitis, influenza, pneumonia, and rheumatism. Scarlatina and whooping-cough are disappearing.

We have to note this week the very general prevalence of influenza, — in many sections, of a severe type. Measles is extending westward. Scarlatina is subsiding in the southern parts and is becoming more rife in the northern sections.

If we compare the present with the last week, we find an increase in the prevalence of croup, measles, influenza, and pneumonia; diphtheria, rheumatism, and scarlatina are as at last report; tonsillitis and whooping-cough are less prevalent. The scarcity of water is commented on by many reporters.

F. W. Draper, M. D., Registrar.

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COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING JANUARY 23, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
Philadelphia	775,000	355	24
Brooklyn	450,000	260	30
Boston	350,000	164	24
Providence	100,000	41	21
Worcester	50,000	19	20
Lowell	50,000	21	22
Cambridge	44,000	26	31
Fall River	34,200	17	26
Lawrence	33,000	19	30
Springfield	33,000	5	8
Lynn	28,000	11	20
Salem	26,000	10	20

Married. — In Ayer's Village, Haverhill, Mass., January 26, 1875, at the residence of the bride's father, by Rev. E. W. Allen, Thomas S. McAllister, M. D., of Amesbury, Mass., to Ellen M., only daughter of Monroe Ayer, Esq.

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ON IRREDUCIBLE HERNIA.

BY W. C. B. FIFIELD, M. D.,
Surgeon to the Boston City Hospital.

A CASE occurring in my wards at the City Hospital, exemplifying the difference between irreducible and strangulated hernia, and the advantages which result from a little patient waiting before proceeding to a cutting operation, furnished the text for this little essay. It also exhibited the phenomena of inflamed hernia and its proper treatment. Abernethy held an amputation, and by consequence any cutting operation, to be the opprobrium of surgery. Velpeau taught that a scratch was a gate open to death. Hence, he who by excellence in diagnosis has been able to avoid a recourse to the knife is entitled to a far greater meed of glory than he who has expertly performed a needless operation. Perhaps in no department of surgery is this idea to be more constantly kept in remembrance than in that which relates to hernia. The common error is to confound irreducibility with strangulation; inflammation of a hernia, as contradistinguished from strangulation, is often totally ignored. So much has been said and so well said about "delay in operating," that I fear the too prevalent idea regarding hernia is, that if taxis together with ether does not succeed, an operation must follow, without waiting to see if the hernia be really strangulated or not, or if opium, ice, poultices, leeches, a raised position of the pelvis, persistently followed, would not do a great deal better; or whether, if some operation must be done, the pneumatic aspirator, or even the finger in some cases, so as to forcibly dilate the constriction, would not answer as well as the knife. A surgeon who is skilled in diagnosis will rarely find a case of hernia to operate on. Such a surgeon may be called timid or over-cautious, but he has often the satisfaction of knowing that surgery has suffered no injury at his hands. Nothing should or can cause a true surgeon more self-condemnation than to feel that he has by a needless or ill-timed operation increased the chances of death. Dr. Gross has recently uttered some excellent words regarding haste to operate for hernia. Carsten Holthouse, whose excellent work on hernia should be in every surgeon's library, is full of instruction on this point. I like Mr. Holthouse's division of hernia into "irreducible," temporarily irreducible, and strangulated; although it may be said that unless there be great adhesions no hernia can be called absolutely irreducible. I also confess that I have a greater liking for the word "incarcerated" than for "temporarily irreducible."

Hear Sir Charles Bell: "The hernia is retained in the sac by incarceration, that is, by its distention; but there is very little or no stricture of its blood-vessels. Strangulation is that state where not only is the alimentary matter in the canal obstructed, but the blood in the vessels, and there is momentary danger of mortification." This temporary irreducibility, it must be remembered, is not an affair to be measured by hours, but by days and weeks. It may even be accompanied by vomiting and pain, but these do not compel us to operation, unless they be constant and urgent. If the hernia be tender and red, this is rather an argument against, than for operation, provided strangulation is not absolutely present. Conceive, if you can, how dangerous for the patient would be the laying open of a hernial sac when the hernia was merely incarcerated and inflamed. Who among us cannot recall unnecessary operations for hernia? Even the great Liston himself operated for what he thought hernia, although his operation was indefensible, for no symptom of strangulation was present, and he found neither intestine nor omentum in the sac.

Mr. Holthouse gives the following case. Most surgeons who once were young, and now are old, can recall similar ones that have happened, perhaps to themselves. It is a pity that old heads do not grow on young shoulders.

"A laboring man, sixty years of age, the subject of chronic bronchitis, and who had had for six years a double inguinal reducible hernia, awoke one morning in some pain, from the right hernia having descended during the night and become irreducible. The parish doctor, having been sent for, tried the taxis for nearly an hour, but failed to return the protrusion. The same afternoon the patient was seen by a young surgeon, who had him placed in a warm bath, and again attempted reduction, but with no better success. After that an enema of warm water and castor oil was administered, and ice applied to the tumor; but these means also failing, and the young surgeon, who had now taken the principal charge of the case, becoming alarmed, a young hospital surgeon was sent for, who, notwithstanding there were no symptoms of strangulation, cut down upon the tumor and returned the bowel. Six days after the operation, both herniæ having descended, I was consulted as to the propriety of reopening the wound, in order again to return the protrusion, and with some difficulty succeeded in convincing this enterprising young surgeon that, as there was no strangulation, another operation might be dispensed with."

The treatment of hernia, whether it belongs to that form termed permanently irreducible or to that called temporarily irreducible, seems to be either not generally understood, or not enforced to the degree and with the persistence that experience has shown to be often followed by success. Lawrence, in his work on Hernia, says,[1] "Surgical observers have recorded several cases in which large, old, and irreducible ruptures, in consequence of long confinement in bed, have returned completely into the cavity of the abdomen." It has been proposed to imitate this operation of nature by art, and the attempt has sometimes been successful. By this plan, and keeping the patient on low diet, together with venesection, calomel, purgatives, and clysters, Armand accomplished the replacement of a vast scrotal rupture which had existed since infancy, and succeeded in numerous herniæ which had resisted every other method. A treatment of a month's duration enabled Mr. Earle to return a hernia which had existed two years. Mr. Lawrence himself had a successful case of this kind. It is to be regretted that this plan for the reduction of herniæ commonly termed irreducible is not more commonly known and practiced.

Of the successful treatment of temporarily irreducible herniæ accompanied with inflammation, a case given by Mr. Holthouse is an excellent illustration. R. B., aged thirty, a healthy, fresh-colored man, was admitted into the Westminster Hospital on the 19th of June, 1865, with an oblique inguinal hernia of the left side, which he had had for seven years, and for which he had worn a truss till within three months; he then left it off, and the hernia did not descend till two days before admission, when it passed into the upper part of the scrotum, and could not be returned. There were no other symptoms. The taxis having failed to reduce the rupture, the patient was confined to bed, put on low diet, and ice applied to the tumor; this treatment, varied by leeches and purgatives, succeeded so well that on the 19th of July he was discharged with no trace of the hernia remaining. A thickened sac could be felt.

The case alluded to at the commencement of this paper occurred at the City Hospital, during my term of service in 1871. James R. Keith, aged fifty-seven, admitted to the hospital on the medical side in the early part of the month of October, 1871, was transferred to the surgical wards on the 19th for treatment of a hernia, for which he had for a long time worn a truss, but which had descended five days before and could not be returned by taxis. It had since increased in size, become red and painful, tense and tympanitic, and was of the size of a large fist. There was no vomiting, and the bowels moved by an injection. He was ordered to bed; the scrotum to be elevated, ice-bag over tumor, which was defended from contact with the ice-bag by a fold of flannel; lower end of bedstead to be raised three or four inches from floor by lifts of wood. A quarter of a grain of morphia at 10 A. M., to be repeated at 8 and 10 P. M. Low diet.

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[1] Page 134.

October 20. Tumor apparently a little diminished in size. Inflammation lessened. Continue treatment.

October 21. No change in tumor.

October 24. Hernia more tender. Patient irritable, tongue brown and dry; pulse irregular; skin hot.

October 25. Hernia reduced in size one half. General condition improved. Use of ice-bag continued.

October 26. Hernia smaller than yesterday.

October 30. But little of the hernia remains.

November 3. All that remains is a hard, thickened mass about the inguinal ring.

November 10. Condition about the same, with some diminution in the swelling.

November 17. Tumor diminishing in size slowly and softening. A Phelps's truss was carefully prepared and applied by Mr. Edmund Daniels.

November 18. Laxative, on account of costiveness.

November 20. Discharged, well.

Temporarily irreducible or incarcerated hernia may be attended by pain, vomiting, and impossibility of voiding fæces. It may be unreturnable by taxis, and yet an operation not be demanded; nay, an operation may be highly improper, unless all these be persistent. Dr. Gross thinks that the majority of cases called strangulated hernia do not demand immediate operation, but may be successfully treated without recourse to the knife. It is the tyro who rushes to herniotomy, who applies taxis timidly, or continues it too long. Dr. Gross, when called to operate, often contents himself with the application of the ice-bag, carefully kept from immediate contact with the skin by a double fold of flannel (an important precaution), a raised position of the lower part of the body, and a dose of chloral followed by morphine; and he frequently finds the hernia returned at his next visit. Armed with opium alone, the general practitioner may pass through a life-time without seeing a case of hernia, especially of inguinal hernia, demanding operation by the knife. Mr. Bransby Cooper says, "I have never recommended opium by choice as a substitute for the operation, but in four or five cases where the patients refused to submit to it, I have employed it with perfect success. I first learned this practice from the late Mr. Bush, of Frome, in Somersetshire, who informed me that although at one time of his life he had had to perform the operation for hernia several times in the course of every year, yet after he had adopted the opium treatment he rarely had occasion to resort to the knife. In July, 1838, I admitted a man aged sixty-four into Guy's Hospital. He was the subject of strangulated inguinal hernia of five days' standing. He suffered from constant vomiting and insuperable constipation. I attempted the taxis, but could not succeed, and proposed an immediate operation. To this the patient would not consent, so I ordered him three grains of opium. In about four hours the sickness was relieved, and some flatus passed per anum, but the constipation still remained. At twelve o'clock of the same night my dresser, Mr. Coleman, repeated the dose of opium. The patient passed a very quiet night, and in the morning the vomiting had ceased, and a copious motion was passed, during which the hernia returned into the abdomen." Mr. Cooper gives four similar cases, in all of which the operation by the knife had been proposed and refused, but all recovered under opium, including one case of femoral hernia, the least likely to have returned without operation. Mr. Holthouse gives many cases of such successful treatment by rest, ice, and opium, where he had been called upon to operate.

It is to be remembered that a strangulated hernia is not necessarily fatal when left to itself. The following story, told by Jean Louis Petit, made a profound impression on my mind when I read it at a very early part of my professional life: "I was going by night to La Ferté-sous-Jouarre, when the postilion lost his way. Perceiving a light in a neighboring hamlet, I went to the house of a peasant to inquire the road, and found his wife on the point of death from an intestinal hernia which had burst in the sac, and had given issue to a large quantity of fæcal matter. Thus at least I was informed by the attendant, who said that the swelling had increased in size all at once, and that they had heard at the same time a noise as of wind and water. Being much pressed for time I contented myself with opening the sac, and the bed was inundated with fæcal matter, the discharge being at least eight times as much as the tumor could have possibly contained. The husband recompensed my services by conducting the postilion to Jouarre, and I promised to see his wife on my return next day, but I was detained twenty days. The poor man, impatient at my delay, came on the fifth day to inform me that his wife continued well and felt no pain, but that all her stools were discharged through the wound I had made, and that he knew not with what balm to dress her. I recommended to only keep the wound clean with cloths dipped in a decoction of herbs. In six days he came again to La Ferté to say that his wife had been to stool the naturál way, that the discharge through the wound was very slight, but that she felt excessively hungry. On the twenty-second day I set off for Paris, and found the wound very nearly healed; the opening in the intestine had in all probability entirely closed, as no fæces had passed through it for five days. After the expiration of a month, I saw her again in Paris in a state of perfect health."

(*To be concluded.*)

A CASE OF GENERAL PARALYSIS OF THE INSANE.[1]

BY CHARLES F. FOLSOM, M. D.

JANUARY 15, 1872. Mr. ——, aged forty-eight, married, and by occupation a wholesale cooper, is a tall, robust, vigorous man, in the prime of life, and at a glance seeming in perfect physical health. There is no known hereditary tendency to disease in his case. The patient began life in a small way, and his business gradually increased so as to tax his powers to the utmost, as he was a man of little education and of quite ordinary ability. He was ambitious to make money and to live in a style corresponding to some wealth, and his wife sympathized with him in this ambition. To sustain the tax upon his powers, he had for several years made a pretty generous use of alcohol and tobacco. He indulged his sexual appetite quite frequently, and continued to work very hard mentally and physically. For the past two months he has been constantly under the influence of alcohol, more or less, and his sexual instincts have become very strong. He has had lately considerable domestic trouble and anxiety. Six weeks ago, it was noticed that there was an alteration in his manner; he became careless, negligent, inattentive to his business, irritable, cross, unreasonable, and more than usually intolerant of restraint and contradiction. He soon began to make foolish bargains, and would buy at absurd prices anything that he saw and to which he took a passing fancy. He thought that he possessed great wealth, and lost in some degree his sense of the ownership of property and of truth. His memory was not remarkably impaired, although he would pass rapidly from one subject to another, forgetting things which he had commenced and not finished. A few days ago, he said that he had bought the Fitchburg Railroad for two and a half million dollars. At present his appetite is ravenous. The bodily functions are well performed. No motor symptoms have been noticed. He sleeps well and has never had vertigo.

On entrance to the asylum he is exhilarated, his pulse is somewhat accelerated: he is very uneasy, impatient of restraint, and swears he is not insane. Slight convulsive movements of the muscles of articulation on speaking rapidly or trying to pronounce long words. Pupils contracted, responding unequally. His sense of *meum et tuum* is quite gone; he does not hesitate to threaten violence to any who oppose his grand schemes, and he comes to the hospital because his neighbors began to be afraid of him, and thought best to place him under restraint.

At the asylum he ate greedily, slept well, and at times talked quite rationally for a while; but if any of the subjects of his delusions were mentioned he immediately branched off to the most extravagant statements of his wealth and power. He was "going to build a city of his native town — a ripper it is to be — with gold and diamonds and plenty of women." He was quite obscene in his remarks.

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[1] Read before the Boston Society for Medical Observation, December 7, 1874.

February 20. Performed wonderful feats of strength, such as lifting heavy doors. He was quite excited and violent; walking uneasily up and down the gallery most of the day. His speech was slightly indistinct. He knocked down two attendants, and escaped after jumping over a high fence.

March 10. Contrary to directions, the gallery was left with only one attendant, when Mr.——, assisted by another patient, attacked him and tried to take away his keys. It is noticed that he is losing flesh; he threatens to kill officers and others who interfere with his plans.

March 17. The patient saw his son, and, instead of complaining, told him what a good time he was having, with plenty of wine, tobacco, etc.; but finally he made the young man promise to take him home soon, in order that he might superintend his city and his railroad.

July 11. Excitement generally subsiding. Patient is losing flesh, although eating enormously; he reads or plays cards most of the time, and is quiet. He thinks he is a great poet; "can make a million dollars a day" writing or reciting; has "been offered millions to read poems to the crowned heads of Europe," and some of them have "offered him their daughters in marriage." To keep him quiet, he is furnished with plenty of paper, which he covers with doggerel rhymes, writing very rapidly and composing as he goes, about glittering angels, gold, diamonds, and so forth. His handwriting is unsteady, and tremulous; he omits letters and words, and writes incorrectly words of similar sound. He puts dashes, commas, and other marks in the wrong places, and makes his sentences involved and incoherent. His upper lip is tremulous and less mobile; his speech is thick and is especially at fault in pronouncing *r*'s, *s*'s, and labials. Gait tripping, drawing, and shuffling along on the balls of his feet. Pupils unequal. He is violent to those who contradict him, and has two attendants at hand all the time.

He thinks he is a great engineer, "owns so many railroads that he can afford to give some away." He is quite violent and dangerous, but does not attempt to attack any one but the officers; he can generally be turned to good nature by interested inquiries as to his cities, railroads, or imperial brides, etc. When in a frenzy of fury, a cool question as to what king is to hear his poems first will quiet him so that he will talk happily as long as listened to. He has had a slight attack of erysipelas of the scalp, during which his ideas flowed more rapidly and brilliantly. His memory is more impaired; he runs from one subject to another, forgetting anything unfinished. If the subjects of his delusions are avoided, he is capable of talking rationally; when told that a guardian had been appointed to take care of his property, he laughed and considered it a good joke. No hallucinations of sight and hearing.

August. During this month the patient was excited and furious only occasionally. He now spends most of his time writing, singing, and playing cards. He threatens the physicians, swears that he will kill them, and that the law will not hold him responsible, as they say that he is insane. He offers millions of dollars to the officers, attendants, and patients to let him out, and writes letters to General Grant and other high officials, making the same offer. He sometimes asks the doctors when he will be well, and pretends to concur in their opinions as to his insanity; bears a great deal that is annoying from the other patients, because, as he says, they are insane and do not know any better.

September. Some of his friends saw him, and he tried so hard to appear sane (they not happening to hit the subjects of his delusions in conversation) that they promised to take him away. As they did not do this, however, he became violent again, trying to follow the officers into rooms and corners so as to attack them. Motor disturbances are now very marked.

October. He asks the officers why they think him insane. Upon being told because no sane man thinks he owns all the railroads in the United States, can marry princesses, or build fine cities, his reply is, "Oh! you don't suppose I am such a damned fool as to believe that, do you? I got over those foolish notions long ago." On being asked immediately afterwards what he has written recently, he repeats rapidly and fluently some of his verses, stopping occasionally to say, "Is n't that glorious? By Jove! it 's a shame for a man with abilities like mine to be kept here! Why, I can make a million dollars every day of my life, and a million more every evening, reciting my poems in Europe." At times he manifests a great deal of emotion. His paralytic symptoms are becoming more and more marked, and his mind is growing feebler.

November. An ophthalmoscopic examination was made by Dr. O. F. Wadsworth, who found nothing abnormal. The patient curses and swears at the officers, threatens to kill them, says they are in conspiracy with his wife to get his millions. He followed one of the officers into another patient's room, seized him by the throat, and threatened to kill him unless he gave up his keys.

January, 1873. The patient's excitement has nearly subsided; his hand is tremulous, articulation markedly indistinct; he has lost strength, is generally happy, and is gaining flesh. He is as full of delusions as ever, sings more about his "glittering angels hovering around the throne;" bears contradiction, and is easily argued, for the moment, out of his delusions. The muscles of the face have lost their expression, and his countenance indicates only the vacant *bien-être* so characteristic of the disease. He grows rapidly weaker, mentally and physically, but is apparently very well nourished. He walks pretty constantly, with his legs wide apart and with a shuffling gait, keeps his balance readily on a smooth floor if walking straight ahead, but on turning around, or walking over an uneven surface, and in going up or down stairs, he stumbles and totters. He stands steadily with his eyes closed. His hands and arms are losing strength, and especially as regards the nerves of muscular sense. There is a constant tremor of the lips while talking. He is happy and contented much of the time; he says little about his delusions unless his attention is called to them. Sometimes, when writing his poems, he says he is doing it for no especial object.

March. Generally free from excitement, weaker mentally and physically, walks less, lies about on the floor, slovenly in his habits, obscene in his talk, as easily managed as a child unless crossed very decidedly. He is passive and indifferent, and is losing flesh again slightly. There is diminished sensibility of skin.

He was removed to a State asylum with forty patients in his ward.

July. Quiet, happy, causing no trouble, contented, likes seeing so much society. Failing rapidly. The grasp of the hand is unsteady and less strong. His gait is unsteady, but he still walks a considerable. He still thinks he is a great poet and can make millions, but expresses no desire to get away, and apparently does not want to do so.

June, 1874. From the last date, the patient gradually grew feebler and more demented, and died after convulsions.

The morbid appearances always found in a greater or less degree in general paralysis of the insane are atrophy and diminished specific gravity of the brain, especially of the anterior lobes. In one case attended with melancholic symptoms, Dr. R. H. Fitz found the atrophy especially marked in both middle lobes. Sometimes one half is more atrophied than the other (with protrusion of the tongue to one side, during life). The white substance is harder than usual, the cortical, especially its outer layer, softer. There are pachymeningitis, simple and hæmorrhagic, hæmatoma of the dura mater, thickening and opacity of the pia mater, with adhesions at the apex of the brain, or with the meshes filled with serum. The same conditions are found in the membranes of the cord, with sclerosis of the posterior columns. This sclerosis is often so marked that the nerve-cells are scarcely to be seen.

Myelitis, ending in sclerosis, is quite general where the gait is that of tabes dorsalis, with inability to stand steady with closed eyes.

In this case, the change in the character and the affective sentiments, followed very soon by convulsive movements of the muscles of the body, which were noticeable only in those requiring greater accuracy of action (as for instance in articulation), the grand delusions, the impairment of memory, the loss of self-control, and the contraction of the pupils with unequal sensitiveness to the stimulus of light, made the diagnosis positive in the early stage of the disease. The causes, too, were the common ones: mental and physical exhaustion with anxiety, aided probably by licentious habits of living. The disease is also one of the prime of life and the vigor of manhood. Various statistics in different places make man's liability to it from three to ten times as great as woman's; and its average duration, as in this case, is not far from three years; although with home care and under favorable circumstances, patients of the upper classes not seldom live five or six years.

In most cases, the psychical symptoms are the first to be observed; but motor symptoms may be the first, and may be so rapidly developed as to simulate drunkenness. Exceptionally, the first ataxic symptoms are in the muscles of the eye; and Professor Leidesdorf, of Vienna, has observed spinal symptoms before either cerebral or mental. In the early stages of the disease, the ataxic symptoms are not due to paralysis; but it is not yet possible to say precisely when the paralysis does begin. As it advances, the muscles become for a while better nourished, — a fact difficult to explain, unless we adopt Professor Westphal's theory, that the different ganglionic cells of any particular part of the cord may have different functions, some serving for the nutrition, others for the motor power of the muscles. By the ophthalmoscope, there is some hyperæmia of the retina early; and later, atrophy of the disk, in most cases; but this test is of no diagnostic value. Electro-muscular contractility is usually not diminished until quite late. The temperature is somewhat elevated, and is from one half a degree to two degrees higher at night than in the morning. The higher the morning temperature and the greater the rise towards night, the more rapid is the progress of the disease. There are seldom hallucinations of sight and hearing. At some stage convulsions, apoplectiform, epileptiform, or of the character of petit mal or simple vertigo, are pretty sure to appear. They are few and slight, or frequent and severe, lasting even up to the instant of death. After them, the temperature rises, the cutaneous sensibility is increased (at times to extreme hyperæsthesia), and the intellect becomes more dull, while the muscles grow feebler; occasionally there is effusion.

Melancholia (either slight or suicidal) is generally observed at some time, and it may be the prevailing mental condition; or a patient may alternate between exhilaration and depression. The grand delusions are found in the majority of cases. When present, they are less fixed and sooner forgotten than in other forms of chronic insanity. In a certain form of the disease, which is the common one among prostitutes but rare in the better classes, there are absolutely no delusions and no excitement, — simply a progressive failure of intellect and gradually increasing paralysis. Such cases find their way often to hospitals for paralytics, instead of to asylums for the insane. When the attack of the disease resembles the outburst of acute mania, diagnosis must usually be reserved for a while.

In rapid cases, a fatal result comes within six months. In prolonged cases, there may be remissions of apparent health (with diminished mental and physical strength), lasting from a couple of weeks to nearly a couple of years the total duration of the disease in a few extremely rare cases having been even ten years.

Hæmatomata often appear on the ears, arms, ribs, etc., and are without much doubt of traumatic origin. They are most frequent on the ears, which are exposed to hard pillows, and to pressure in the act of forcible feeding, etc., etc.

Late in the progress of the disease, the patient becomes feeble, must be fed, chokes easily, by taste and smell cannot distinguish wine from water, the delusions disappear, the mind becomes a blank, and there is no idea of even primary instincts. Finally, bed-ridden, unable to move his legs, with bed-sores, defiling himself with his own filth, the patient *invariably dies*, unless his life has fortunately been cut short by intercurrent disease or accident, or during convulsions.

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RECENT PROGRESS IN THE TREATMENT OF CHILDREN'S DISEASES.[1]

BY D. H. HAYDEN, M. D.

NIGHT TERRORS OF CHILDREN.

THERE exists considerable difference of opinion as to the nature of this complaint, due in a great measure to the want of personal observation and study of the symptoms by physicians, who rely for their knowledge upon the descriptions of parents and nurses. Professor Steiner has recently contributed to the literature of the subject a valuable paper[2] of which the following is a summary.

As an illustration of the manner in which the disease manifests itself, the writer reports a case in full. With the exception of previous attacks of scrofulous ophthalmia and of an occasional nasal catarrh, the patient, a young girl five years old, was of healthy constitution, and during the whole time suffered in no way from disturbances of digestion. The paroxysms occurred at irregular intervals, varying from four days to eight weeks; and at the time of writing, the trouble had already lasted two years. On one occasion there were two paroxysms in the same night; but the last one was shorter and less severe. The duration of the paroxysms was from twenty to thirty minutes. After entirely waking up from the attack, the child was always oblivious of what had occurred.

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[1] Concluded from page 129.

[2] Jahrbuch für Kinderheilkunde, N. F., December 3, 1874.

With regard to the nature of the disease, the writer considers it a the expression of a cerebral irritation, making its appearance under th form of a frightful dream, as a rule during the first sleep, in which th objects inspiring fear (dogs, cats, black men, ghosts, etc.) work so vi idly upon the children that they rise out of their sleep, cry, and screan without, however, being perfectly awake ; so that this condition strikingl resembles a transitory mania with hallucinations of a terror-producin nature.

Is the cause of this transitory irritation of the brain primary and id opathic, or of reflex origin? According to the writer's experienc which has been large, the children thus affected have never bee healthy children, but are generally delicate and anæmic, carrying trac of rachitis or signs of scrofula. They often show, in addition to th attacks, symptoms of great nervous excitability and timidity. For ir stance, in one case cited, a little girl four years old was always ver much frightened on waking up at night in a dark room ; the mother this patient, a very nervous woman, had also the same dread.

In the writer's own cases the cause of the paroxysms could not b assigned to gastric disturbances, worms, late or immoderate eating, dentition, as none of these conditions were present. In a large propo tion of the children digestion was perfectly normal and the bowels we regular, the appetite on the days of the paroxysms being as good as du ing the intervals; most of the children were between three and si years of age, so that dentition could be excluded as a cause ; and in n single instance were worms present, by which to explain the occurrenc of the paroxysms.

The author feels compelled therefore to look for the cause of these attacks in an *idiopathic* irritation of the brain, taking root in children who are of unhealthy constitution and who suffer from deficient and abnormal nutrition. These views have been strengthened by the observation that, when gastric disturbances and diarrhœa made their appearance, the paroxysms often disappeared entirely.

It is not denied that, when a predisposition exists, certain exciting causes may exercise a great influence upon the number and frequency of the paroxysms ; but we must look upon the disturbances of nutrition in the brain as the principal cause of the trouble. Among these exciting causes are to be especially classed bad mental training, telling of ghost-stories before going to bed, sleeping in a dark room, all of which are calculated to heat and excite the vivid imagination of children who without this are naturally timid and easily excitable.

Night terrors are often a symptom of transitory character and of but little significance, a disturbance disappearing entirely with proper treatment; in some cases, however, especially where the paroxysms occu with great frequency and violence, they must be looked upon as th early forerunner of some serious disease of the brain.

The treatment based upon the writer's views as to the nature of the disease consists in attention to the general health and nutrition, and to proper mental and physical training.

The author expresses a hope that his professional colleagues will contribute their experience with regard to the disease in question.

DIPHTHERIA AND SCARLATINA.

During an epidemic of diphtheria in the spring of the present year, Dr. G. Mayer, of Aix-la-Chapelle, treated sixty cases with the continuous use of ice and ice-water.[1] From most remedies recommended as specific, the author had previously seen little if any result. Of all internal remedies, chlorate of potash in large and frequently repeated doses appeared to be the most effective, prescribed as follows for a child five years old: —

Potassæ chloratis	8 parts.
Aquæ destillatæ	225 parts.
Syrupi rubi idæi	25 parts.

Dose, one dessert-spoonful every hour, day and night.

He recommends, however, as by far the surest remedy, in a large majority of cases decidedly life-saving, the continuous use of ice internally, day and night. Of the sixty cases thus treated, only one died, a boy five years old, the disease having extended to the larynx very soon after its commencement. Tracheotomy prolonged life four days without saving it, the operation, during this epidemic, when performed, being followed by good results in only a small percentage of the cases.

In the above cases small pieces of ice were placed in the mouth and allowed to melt, and the operation was repeated uninterruptedly day and night for the first two or three days, in the worst cases for a longer time; also as often as possible the patient was given ice-water to drink in greater or less amount. Even with infants eight or ten months old, it is easy to administer ice-water in teaspoonful doses, and the author saw, in the case of a child nine months old, where the mother repeated this operation every two minutes during the whole of the first night, on the second day a decided diminution of the fever and restriction of the local symptoms. The drinking of ice-water has a more decided action than the swallowing of ice in cooling the pharynx. The children generally make great resistance to drinking so frequently, especially during the night, yet by sufficient perseverance on the part of the attendant, it can be carried out regularly and continuously for the first two days. The drink can be made more palatable by the addition of sugar, or of raspberry or lemon syrup; in some cases also by adding red wine. The ice should be pure, and when such cannot be obtained the vessel containing the water should be placed in a mixture of salt and ice and thus lowered to the proper temperature. When there was much swelling of the glands of the neck, ice-bags were a plied in the form of cravats, though the occasions requiring this we rare. It was not uncommon with the above treatment to see decid improvement in the local appearances on the second day, and in b cases the fever did not last longer than from five to seven days: whe as, by other methods of treatment, especially with cauterizations, t course of the disease was often slow, dragging on for a long tim When improvement begins, generally after two or three days, the chi may be allowed to rest at night, but ice should then be given whenev he wakes up. The great advantage of this treatment consists in its pr venting the extension of the diphtheritic inflammation especially into t larynx, in the rapid spontaneous loosening of the already formed me brane, in the rapid diminution of fever, and in the prevention of bl poisoning. Cauterizations are condemned as increasing the inflamm tory swelling of the mucous membrane, endangering extension into t larynx, and, by opening blood-vessels, favoring blood-poisoning. T author does not claim that this treatment is original with him, but thin that hitherto its advantages have not been sufficiently emphasized a proclaimed.

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[1] Jahrbuch für Kinderheilkunde, N. F., vii Jahrgang; 4 Heft.

There was a still greater need of the use of heat-extracting metho of treatment during an epidemic of scarlatina, which had prevailed Aix-la Chapelle since the summer of 1873, and which was not yet over the time of writing this article. The epidemic was not a malignant on the disposition to sequelæ was small, and cases of extreme malignanc such as were common during the epidemic of 1864, when death ensue in the first stages with symptoms of coma and convulsions, and a tempe ature of 41° C., were very rare. Of forty-nine cases treated, only thre had swelling of the face, and moderate albuminuria (catarrhal nephritis which passed rapidly away without any further bad results. Baths o cool water were used in eight cases; of these, one died and the other recovered. Of the seven that recovered, œdema of the face made it appearance in one, a young girl five years old, which rapidly disappeared; in a girl two years old there was an otitis externa and adeniti submaxillaris which suppurated; there remained at the time of writing two months afterwards, an otorrhœa, which was gradually diminishing Baths were used generally when the temperature in the axilla reache 40° C., especially if at the same time there was violent delirium, or if tendency to coma or convulsions showed itself. When the baths wer once begun, the temperature was taken every three or four hours during the day, and a bath was given as often as it reached 39.5° or eve 39° C. These baths were given at 27°, gradually cooled to 22° o 21° R., and, where the temperature was very high, to 18° R. Their du ration was ten minutes. From this treatment the author saw grea benefit. The subjective symptoms of the patient were much alleviate and the lowering effect upon the temperature lasted several hours. Inunction of lard was as a rule made daily, with great relief to the itching of the skin. Ice-bags were kept continuously applied the first few days, rendering good assistance. Ice and ice-water, in accordance with the method already described, and also chlorate of potash for several days, were used in all cases, in those treated with baths as well as in those less sick, as nearly all showed more or less diphtheritis faucium. Otherwise, except in a few instances, where on account of the continuous high temperature quinine was administered in large doses at evening, very little medicine was given. In urgent cases where quinine is indicated and the patient cannot swallow, it can be given subcutaneously; under such conditions the author recommends trying camphor injected hourly. In one instance of lung paralysis, he saw the best results follow the subcutaneous injection of benzoes. The temperature of the room when possible was kept regulated at 10°–12° R., during the first days; later, when the fever diminished, at 14°–15° R.

THE WET SHEET IN SCARLATINA.

Dr. Taylor[1] thinks that the above "simple, powerful, and ready-at-hand auxiliary" in the treatment of scarlatina is not properly appreciated by the profession. An experience of forty years has served to assure him "that this plain or medicated vapor-giving envelope affords the best *external means* for eliminating scarlatinal poison and preventing destructive sequelæ." It promptly suppresses pyrexial heat and itching; produces more or less continuous sleep, with a soft, secretive skin; and enables the digestive organs to accomplish the great desideratum in scarlatina, namely, absorption of highly nutritious food. It may be repeated, on the recurrence of the febrile paroxysm, two, three, or four times in twenty-four hours, the patient remaining enveloped from half an hour to an hour. Mothers and nurses who have witnessed its efficacy are most earnest for its repetition. His plan of procedure is to immerse a night-gown, slit up at the front, in hot water (half a pint to a pint), pure or medicated with a drachm or two drachms of tincture of capsicum, or in the infusion of three or four pods; or in mustard-water, the clear, supernatant fluid from a tablespoonful of mustard to a pint of water; extending the gown over the feet by means of a towel immersed in the same fluid, both to be well wrung out and suddenly applied, and the patient quickly packed in two blankets previously placed on the adjoining sofa or bed; another blanket, or two pillows, or an eider-down quilt, covering all.

The medicated packing is preferable in the incipiency, and at any other time to evoke the rash, and in cases of cerebral oppression, with pale skin, low pulse, and delirium.

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[1] Lancet, November 14, 1874.

The auxiliary mode of treatment here defined is by no means inte to exclude the ordinary plan which every practitioner's experienc led him to select and to rely upon; but the author believes that if ing is judiciously incorporated with such reliable treatment, it w the means of saving many lives that would otherwise be lost, a diminishing the severity and duration of the sequelæ.

THE RATIONAL TREATMENT OF WHOOPING-COUGH.

Dr. A. v. Wolkenstein, of St. Petersburg, regarding this disea a spasmodic cough, accompanied by a laryngeal and bronchial ca and the spasmodic cough as occasioned by irritation of the su laryngeal nerve and, by reflex action, of the accessory nerve, find indication for treatment in a remedy that will diminish the irritabil the superior laryngeal nerve.[1] For this purpose, experiments made upon cats, rabbits, and dogs with various narcotic remedie following being injected into the rectum and subcutaneous cellula sue: bromide of potassium, belladonna, atropine, chloroform, hy mus, aconite, alcohol, morphine, cyanide of potassium, aqua am larum amarum, calomel, corrosive sublimate, and chloral hydrate. carefully measuring the time between the irritation and reflex a the degree of normal reflex irritability in the animal was first establi it was then poisoned with one of the above drugs until all reflex ceased. Tracheotomy was then performed with two wounds: one i diately below the cricoid cartilage; the other above, at the Adam's The first wound opened the way to the posterior portion of the ph and to the false vocal cords; the second to the lower portion vocal cords and to Bidder's reflex zone. When the extremities superior laryngeal nerve were irritated with a feather or brush, followed immediately a violent reflex cough, with closure of the g After intoxication of the animals with some of the above remedies, symptoms did not follow, and the employment of such should be re ed as the most rational treatment for whooping-cough.

The most efficient of these agents was morphine; belladonna pro no effect. Under the use of the latter, even to complete narcosi reflex irritability was not entirely removed. Chloroform, aconite, cyamus, alcohol (ninety per cent.), calomel, and corrosive subl were tested, but none of them produced good results. Cyanide of sium and aqua amygdalarum amarum did not work so well or so q as morphine. The best remedy, therefore, according to the aut morphine; next to this come chloral hydrate and bromide of sium. The effects of these remedies have been tried by him a cases of the disease in question, and he proposes shortly to publi results.

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[1] Centralblatt für die medicinischen Wissenschaften, November 21, 1874.

ALLEN ON THE ANATOMY OF THE FACIAL REGION.[1]

We have to thank Dr. Allen for a valuable contribution to English anatomical literature. The book presents little that is original, but is none the less a valuable as well as an interesting treatise on the topographical anatomy of the face. The work is a collection " of jottings from lectures delivered to successive classes of dental students," but is as well or better fitted for the wants of the surgeon. It is very much to be desired that dentists should have some idea of the anatomy and physiology of the parts surrounding the organs with which it is their special province to deal, so that they may be aware of accidents likely to occur, and may know when to send a patient to a surgeon. It might be said that the range of the book is more extensive than it need be for merely dental requirements, but the error, if it be one, is on the right side. The style is easy and clear, the dryness of anatomical details being frequently relieved by accounts of striking cases of injury to the parts in question and of operations for their relief. In this respect the book reminds us of Hyrtl's Topographical Anatomy, to which the author frequently refers.

There is so much to praise that we were absolutely startled by the author's remarks on the action of the external pterygoid muscle. He writes, " The actions of the pterygoids are complicated. The massive internal pterygoid and the masseter act together in directly raising the lower jaw. But before it can do this, the condyloid process, which has been tilted out of the glenoid fossa, must be replaced. This is done by the external pterygoid; the larger slip operating on the jaw, the lesser one adjusting the capsule and the inter-articular disk. The external pterygoid holds to the tempero-maxillary articulation the same relation held by the popliteal muscle to the knee-joint." We were hardly prepared to see accepted views overthrown without even an allusion to their existence. The action of the external pterygoid is, if both be acting, to draw the condyles and inter-articular cartilages forward, a preparatory step towards opening the mouth ; or, if one act alone, to draw these parts forward and inward. We cannot give up these views without some reason for so doing. We see no mention of the action of the digastric, which is of some importance in this relation. The remarks on the lower jaw are excellent, as is also the description of the oral cavity and pharynx. We reserve for another occasion the discussion of Dr. Allen's very interesting observations on the nomenclature of teeth.

T. D. Jr.

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ANDERSON ON THE TREATMENT OF ECZEMA.

The preceding edition of this book,[2] published in 1867, was so good that it could scarcely have been better at that time. Dr. Anderson had studied dermatology long enough in the schools of Vienna and Paris to recognize the merits of a broader pathology than that taught at home, and his volume, dedicated to Hebra, was of great service in introducing into the British Islands the doctrines and practices of this teacher in their relations to this disease. It contained, moreover, the results of his own extensive observations upon the nature and etiology of eczema, and especially the most minute and careful details of treatment for all its various forms. Taken as a whole, it might fairly have been called the best chapter on eczema in English literature.

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[1] *Studies on the Facial Region.* By Harrison Allen, M. D., Professor of Anatomy and Surgery at the Philadelphia Dental College. Philadelphia : J. B. Lippincott & Co. 1875. Pages 117.

[2] *A Practical Treatise upon Eczema, including its Lichenous and Impetiginous Forms.* By Dr. McCall Anderson, of Glasgow. Third edition, with illustrations. Pages 208. Philadelphia: Lindsay and Blakiston. 1875.

To improve upon it would seem, therefore, no easy task, even for its author, and so Dr. Anderson seems to have found it. The results of the recent investigations into the histology of the tissue-changes which make up the lesions characteristic of the various stages of the disease, as given in the works of Neumann, Biesiadecki, Rindfleisch, and others, with their illustrations, have been appropriately introduced as a separate chapter, and add to the completeness of the book. A few new points in the pathology and therapeutics of the affection also receive due attention, and have been illustrated by cases. In all its essential and characteristic features, however, it remains unchanged, an admirable book for practitioner and student.

The publishers' work is very handsomely done. J. C. W.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY.[1]

This pamphlet, of about one hundred and thirty pages, completes Volume I. of the transactions of the society. Following a List of Members and the Minutes of the Seventh Annual Meeting is a Report on the Progress of Otology, by Drs. C. H. Burnett and C. J. Blake. The Report is divided into three parts: I. Anatomy and Physiology; II. Pathology and Therapeutics; III. Reviews and Book Notices. Among the subjects noticed in the first part is an account of the researches made by Drs. Curschmann, Lucae, Cyon, and others regarding the functions of the semicircular canals; their conclusions seem to be that these canals preside over the sense of equilibrium, and that disturbances in the equilibrium of the body follow their injury. In Part II. it is stated that Dr. Phillimore, in a series of remarks upon the occurrence of hæmatoma, observes that he has never found this disease unaccompanied by disease of the brain or the membranes; and furthermore, with regard to its location in the auricle, that in none of the cases under his observation has the tumor included the posterior surface of the pinna or the lobule. A paper by Dr. J. Orne Green on Mastoid Inflammation, which was published in the Journal for January 22, 1874, is printed in the report.

Dr. C. J. Blake communicates a paper on Perforations of the Membrane of Shrapnell in Purulent Inflammation of the Middle Ear. This lesion is stated to be somewhat rare, owing to the position and anatomical relations of this portion of the dividing wall between the middle and the outer ear, as well as to the laxity of the membrane. When the destruction of the membrana tympani affords a free outlet for the purulent secretion which may form in inflammation of the middle ear, the region of the membrane of Shrapnell is commonly left intact. But when the membrana tympani, thickened by previous disease, offers a stubborn resistance to the effects of the inflammatory and suppurative process within, or when the perforation which finally occurs is too small to afford an adequate opening for the escape of the discharge, perforation of the membrane of Shrapnell may occur.

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[1] *Transactions of the American Otological Society.* Seventh Annual Meeting, Newport, R. I., July 15, 1874. For sale by James Campbell.

Dr. Henry D. Noyes reports a case of Irritation of the Chorda Tympani, with Paralysis of the Facial. The patient, a physician, gives in his own words a clear statement of his symptoms before coming under the care of Dr. Noyes. It is stated that cases of persistent irritation of the chorda tympani are not often recorded, and the facts of the case reported are valuable clinically and physiologically, confirming as they do the results of experiments on animals.

In a paper on Neuralgia in and about the Ear, Dr. J. Orne Green calls attention to a variety of reflex neuralgia of the tympanic plexus, the result of disease of the larynx. He mentions that Dr. S. W. Langmaid has read a paper on several cases of epithelioma of the larynx, in some of which an excruciating neuralgia of the ear was the prominent symptom; this continued till death, and could not be relieved. Dr. Green has seen neuralgia of a like character present in a case of well-marked laryngeal phthisis. No disease of the ear could be discovered.

Other papers on subjects connected with otology, written by Drs. Buck, Pomeroy, and Webster, of New York; Dr. Mathewson, of Brooklyn; and Dr. Burnett, of Philadelphia, are published in this valuable report.

CHARLES G. PUTNAM, M. D.

This honored physician, who died suddenly on Friday last, the 5th of February, was born in Salem in the year 1805. He took his first degree at Harvard College in 1824, and that of Doctor of Medicine at the same institution in 1827. After practising a few years in Salem he removed to Boston, where he married the eldest daughter of the late Dr. James Jackson. His practice was more especially in obstetrics and the diseases of women, on which subjects he made occasional communications to the profession through the journals. With the exception of these and of a translation of the treatise of Louis on Bloodletting, he did nothing to make himself very widely known. But the profession of his native State was not unacquainted with his merits and standing, and in 1869 conferred the highest honor in their gift upon him by choosing him President of the Massachusetts Medical Society.

There are men enough whose names are famous, so that when they are seen in the list of the dead all the world recognizes them, and yet who are not much missed by any immediate circle. And there are other men not much known beyond the limits of the community in which they live, whose loss falls heavily on many hearts, whose eulogy, however brief, comes mingled with from the lips of all who knew them and speaks only what they feel. Tl clergyman who has been the teacher and adviser and consoler of his litt — the good physician who has done all that his skill and devotion c for his trusting patients, often stand in this relation to the many and t to the world at large, on the one hand, and on the other to that lesse which encompasses every man and in which he is held at his true value genuine human qualities.

Such a man was Dr. Putnam. Except for the public honor conferre him unsought, his life was passed remote from general observation, in th less and inconspicuous discharge of his duties as a physician. Grave in cheerful in temperament, gentle, quiet, kindly, sympathetic, nature mark for the calling he had chosen. Good judgment, which in a physician i all the showy gifts that make men shine in other walks of life, was his characteristic. He gave himself to his profession without reserve, f the one condition essential to the best kind of success, and thus acqui confidence which is reposed only in the practitioner who lives entirely sacred duties.

Dr. Putnam's marriage brought him naturally into close professional r with Dr. James Jackson. All the experience of that true master of the art became familiar to his son-in-law in their constant intercourse. To Dr. Jackson was an education such as many who cross the seas and home full of the latest novelties of science never get. One may st inside of a clock for a long time, and lay it down without being able what is the hour of day. So there is a great deal of knowledge rela the internal bodily mechanism, curious, interesting, now and then va but which, so far as the well being of any given patient is concerned, i insignificant as compared with that bedside clairvoyance, often found i cious practitioners whose scientific acquirements are somewhat defective, sees in the patient's attitude, expression, voice, movements, and all o signs, the state of those vital forces which it is the physician's chief busi support, to restrain, to modify, as he watches them from day to day c hour to hour. Dr. Putnam, like his revered master, was a man whos was at the bedside, rather than in any of the laboratories of unapplied s where the special qualities that make the practitioner are less called less appreciated.

We lament the loss of those who study science for its own sake. feel a deeper personal grief at the loss of those who use their kno directly for our need; who stand by us and ours in the time of sufferi peril, and give themselves, — all their mind and heart and strength, — service as long as our necessity requires.

One of these best-beloved friends has just left us. His merits w beyond his pretensions, and the universal esteem in which he was held wa true measure. He has filled the full term of human life with days of and unheralded usefulness; none more free from blame, none more ing of honorable remembrance. His life has helped, unconsciously to h to form the character of the profession in the city where he practised.

not strive nor cry, nor did any man hear his voice in the streets; but as he loved the sweet accords of music, so he loved the placid harmonies of life and shamed its discordant clamors, when such arose, by his peaceful equanimity.

His life has rounded itself to a perfect close. He has bequeathed his name and character to children whose promise has rewarded all his hopes. Summoned, not without timely, but gentle warning, he has been released from the growing burdens of age, and the threatened prospect of years when he might have to say there is no pleasure in them, as quietly as the leaf falls when the season is ended.

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THE BOSTON DISPENSARY.

A PERUSAL of the seventy-eighth annual report of this institution will show the vast increase in the amount of work now accomplished by its medical staff. During the past year nearly forty thousand patients have received treatment, the greater part of the work being done at the central office. The limited accommodations of the present building render it totally unfit to accommodate the large numbers of patients who frequent it daily. The waiting-rooms and halls are filled to overflowing. The superintendent has urged the necessity of a new building, and this demand is fully indorsed by the executive committee. This charity has now for three quarters of a century faithfully performed its duties, and is conducted in a most systematic and careful manner. If the present antiquated structure were replaced by a new one arranged expressly for the needs of such an institution, the comfort of the sick poor would be greatly increased, and the same work might be performed at much less sacrifice of time and labor.

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THE AMERICAN MEDICAL ASSOCIATION.

As the action of the Suffolk District Medical Society in regard to sending delegates to the next meeting of the American Medical Association shows, the discussions carried on in our columns during December last have not been fruitless, and the society, forgetting past differences, is disposed to make one last determined effort to aid in a commendable reform. Though not very sanguine of success, we most earnestly desire the improvement of the association, and, to promote it, we now call on the societies of this and other States to assist us by sending large bodies of carefully picked delegates. If this is done, and continued in future years, success is nearly certain. There are, we think, but two dangers. The first suggests Hotspur's answer to Glendower's boast that he could "call spirits from the vasty deep:" "Why, so can I, or so can any man; but will they come when you do call for them?" Will these delegates go? The second danger is, in fact, a consequence of the first. As far as we know, the association itself has no desire to be reformed, and we have our misgivings as to the reception a small number of reformers might meet with. What is needed is a general rising of the best men throughout the country; sl this occur, and we hope it may, the Association would at once become a s of pride to all of us. All traces of political antagonism have, we believe appeared from the profession of both sides in our late war, but we are fo most part strangers to our colleagues in the South. The meetings of the ciation would give opportunities for the renewal of old and the formati new friendships. The Transactions, embodying the best labors from all of the country, could not fail to be of great value. Let us hope that this come to pass. If, on the other hand, it should unfortunately be the case the best men from the entire country will not take the trouble to attend, i be a proof that they do not think the Association worth preserving, a will continue its present course from bad to worse.

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MEDICAL EDUCATION IN THE UNITED STATES.

ALTHOUGH we are not of those who look with complacent satisfactio the present state of medical education in the United States, we are h inclined to sympathize with the editor of the London *Lancet* in the gl and somewhat obscure view which he takes of the situation. Our conte rary has confounded two questions: state legislation for the regulation o practice of medicine, and the standard of education required by our me schools.

In regard to the former, it is undoubtedly true that we are lamentably cient in laws which control even in a measure the practice of a class of me impose upon a credulous public with absolute freedom; indeed, no on deny that we are fairly overrun with quacks *et id omne genus.* It is not wondered at, therefore, that the operations of these individuals have such favorable auspices been extended to distant fields, and that we have so much of late years of the "bogus diploma." This traffic has, how been pretty thoroughly suppressed, and, moreover, it would hardly be fai father this particular class of swindlers on the American medical profe than for us to hold the English aristocracy responsible for the doings of an "English lord" who has figured in our courts.

In regard to medical education, our critic says, "there must be much rable medical teaching in the United States," but mentions a class of u sities which he fears is large, and of which he says the University of Cali is a type. The *San Francisco Newsletter* is his authority for stating that of the professors of this university are without diplomas, and, moreover this is a State university. We confess to being somewhat startled by announcement, but when we learn in the same article that Yale Univer in Massachusetts, and that the Philadelphia University (the notorious nu of bogus degrees) is "an admirable school from which reliable diplomas nate," we still entertain a hope that such a lamentable condition of affairs represented does not exist in this country. He justly says, however, th profession in America is deeply interested in the question of medical educ and we wish we could add also "in the creation of authorities for de on the fitness of men to take charge of the life and limbs of the people."

THE ANTIPHLOGISTIC ACTION OF CARBOLIC ACID.

Professor Hueter, of Greifswald, in a report to the third Congress of the German Surgical Society read a paper on the antiphlogistic action of parenchymatous injections of carbolic acid. He has used this treatment with success in white swelling of the joints, in subacute inflammation of the lymphatic glands, in acute phlegmonous inflammations and in traumatic erysipelas. The injection-fluid consists of a two per cent. watery solution of carbolic acid. This strength may, however, be increased. Two grammes may be injected at one time.

Hueter has also employed this treatment in commencing inflammation of the bones, before suppuration has begun. He recommends the injection of one or two drachms of the mixture into the medullary cavity, the softened cortical substance presenting no material resistance to the point of the needle. This same solution he has employed for the radical cure of hydrocele, injecting about seven grammes into the tunica vaginalis. Here, as in the other cases, the carbolic acid injections show their anæsthetic action, very little pain being caused by the process and no pain following it. In applying this method of treatment to tumors he had no success in the case of lipomas and sarcomata. He succeeded in reducing the size of soft fibromata and myxomata; scirrhous nodules became smaller and painless, and epithelial ulcers were changed into healthy, granulating surfaces.

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ETHER VERSUS CHLOROFORM.

The ether revival is again being agitated in London. The *Medical Press and Circular*, in speaking of a death from chloroform reported in the *Canada Medical Record*, says, —

"When we read the account of this chloroform accident, which occurs nearly at the same time as the two deaths in London, one at the Eye Hospital in Moorfields, the other at the Royal Free Hospital, we may well ask why ether is not employed instead of chloroform. At the Royal London Ophthalmic Hospital both Mr. Critchett and Mr. Couper are in favor of ether *versus* chloroform. We really maintain that it is high time to ask why poor people's lives are to be sacrificed to routine."

The *British Medical Journal* also joins in the cry in the following strain: "The crusade against 'chloroform-deaths' which we have carried on during the last two years has had the effect of bringing very prominently into notice the superior safety of ether, and, for short operations, of nitrous oxide. We had, indeed, the satisfaction of witnessing an 'ether-revival.' The ether revival has, however, not extended either so widely or so deeply as it should have done, or as it will, we believe, yet do. It is, indeed, necessary to hit the same nail on the head many times and oft before it is well driven in. We have had the pain of chronicling recently two fatal cases of death from chloroform and from bichloride of methylene, which we believe to be a yet more noxious agent.

We observe the record of two further chloroform-deaths abroad ; and next week we shall republish an analysis of the ether discussion which was last year carried on for many months in our columns, as it will, we believe, be desirable to renew the influence of the articles and letters which we then published. We are very glad to see that some of our medical contemporaries are now disposed to give their aid in the matter, and we hope that a chloroform discussion may be raised at some of the principal societies in London and elsewhere."

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MEDICINE IN YE OLDEN TIME.

In the early days of the Massachusetts Colony, physicians were scarce, and they frequently united their calling with that of some other profession. Their opportunities for acquiring medical knowledge were very limited, though the following law would indicate that they sometimes practiced dissections. The statute was passed in 1641, and is found in the Laws of Massachusetts, printed at Cambridge in 1660. At that time there were fifteen offenses punishable in this colony with death, and it is probable that examinations were occasionally made post mortem, even if they did not go into minute details.

"It is ordered by this Court. That no man condemned to dye, shall be put to death, within four dayes next after his condemnation, unles the Court see special cause to the contrary, or in case of Martial law; nor shall the body of any man so put to death, be unburied twelve hours, unles it be in case of anato mie."

The following law regulating ferries, from the same volume, shows a marked contrast between the means of travel employed by the public then and now. In those early days there were but very few bridges, and the doctors, like everybody else, were dependent on the boats.

"And it is further ordered, That all persons shall be received into such *ferry boats* according to their comming, first or last, onely all publick persons, or such as goe upon publick or urgent occasions, as *Physitians*, *Chirurgeons* and *Midwives*, and such other as are called to women's labours, such shal be transported with the first."

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MEDICAL NOTES.

— At the meeting of the Suffolk District Medical Society held January 30, the committee appointed to consider the expediency of sending delegates to the next meeting of the American Medical Association at Louisville in May, 1875, and also to nominate delegates for the ballot of the society on February 27th, offered the following: —

Voted, That it is expedient to send delegates to the next meeting of the American Medical Association.

Voted, That the following Fellows be nominated as delegates to the meeting: S. L. Abbott, H. H. A. Beach, G. H. Bixby, Buckminster Brown, F. H.

Brown, C. E. Buckingham, E. H. Clarke, Edward Cowles, Samuel H. Durgin, Thomas Dwight, Jr., Calvin Ellis, R. H. Fitz, Norton Folsom, S. A. Green, D. H. Hayden, J. T. Heard, John Homans, W. Ingalls, G. H. Lyman, F. Minot, W. W. Morland, C. P. Putnam, W. L. Richardson, G. C. Shattuck, D. H. Storer, C. W. Swan, T. Waterman, J. C. White, Edward Wigglesworth, Jr.

The report was unanimously adopted.

— In the Paris *Journal de Médecine et de Chirurgie* for December is reported a case under the care of M. Fleury, read by him before the Surgical Society of Paris, in which passing a catheter caused peritonitis, which was followed by death. The patient, a young girl, had been affected with retention of urine for a year. She had menstruated for two years. M. Fleury passed a catheter with every care, but could not pass it in more than four centimetres, and even this caused much pain. Nothing particular could be detected on digital examination. Very acute pain in the abdomen was experienced on the following day, and peritonitis supervening, the patient died on the eighth day. At the autopsy no trace of a bladder could be detected. The ureters were found to open into a *cul-de-sac* formed by the urethra. The retention of urine was also found to be congenital.

— In the *Practitioner*, Dr. Anton Ewald describes a case where vomiting of much acid fluid occurred on alternate days, with the expulsion, from the mouth and anus, of great quantities of combustible gas, which burned with a yellow flame when lighted. The inflammable nature of the gas was first discovered by the patient, who, when lighting a cigar, found to his surprise that his eructations took fire. Chemical analysis showed the gaseous eructations to consist of a mixture of carbonic acid, hydrogen, oxygen, nitrogen, marsh gas, and a little olefiant gas. On examining the contents of the stomach it was found that lactic acid and butyric acid fermentation had been going on in the stomach at the same time as alcoholic fermentation.

— The *Saint Louis Medical Journal* states that the first annual commencement of the Saint Louis School of Midwives was held Friday evening, the 18th ult., at the school, 835 South Eighth Street. After examination before the Board of Advisors and a number of prominent German physicians, the diploma of the school was awarded to the fifteen members of the German class of 1874.

— The valuable Astley Cooper triennial prize amounting to three hundred guineas, has been awarded to Dr. D. J. Hamilton, for his thesis on "Injuries and Diseases of the Spinal Cord." Dr. Hamilton is a graduate of the University of Edinburgh, and received his training in practology in the physiological laboratory of the university.

— Dr. Mary Putnam-Jacobi has been elected delegate to the New York State society from one of the local societies, and it is intended to send her as a delegate to the next meeting of the American Medical Association.

— The French National Assembly has sanctioned the creation of two new faculties of medicine, one at Lyons, the other at Bordeaux. The same privilege was nearly accorded to Lille, but was finally refused in deference to the clerical party, who are there organizing a faculty of medicine in harmony with the new law on the liberty of university teaching.

SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

OPERATIONS were performed under ether in the following cases during the week ending January 23: —

1. Deep-seated abscess in posterior femoral region. 2. Vesico-vaginal fistula. 3. Ruptured perineum. 4. Tumor of neck. 5. Tumor of shoulder. 6. Tumor of eyelid.

1. *Deep-Seated Abscess of Thigh.* — A large abscess occurring in a man twenty-five years old had originated in a fall one month ago. Since that time, the patient had experienced deep-seated pain behind the great trochanter, with some tenderness of late; the parts were slightly indurated. Under ether, deep fluctuation was detected in this region. Dr. Bigelow withdrew by the aspirator about sixteen ounces of dark-colored pus from the neighborhood of the hip-joint. The patient was able to move the joint so freely as to render it improbable that this was in any way diseased.

4. *Tumor of Neck.* — This proved to be an interesting case. A man, twenty-three years of age, entered the hospital with enlargement of the whole anterior aspect of the neck. It was of one year's duration, and its increase had of late been rapid. Upon examination, it was at first doubtful whether this uniformly diffused mass was connected with the thyroid or with the absorbent glands. One or two lobes, however, which did not seem to rise with the larynx in deglutition, rendered it less probable that the disease was goitre. Besides this, there were several smaller masses attached to the lower and anterior aspect of the tumor. If goitrous, it belonged to that exceptional form of enlargement characterized by lobes hanging from the surface of the mass and not imbedded in it. On the other hand, the obscure and diffused outline of the tumor made it impossible to say that the growth was of leukæmic, lymphomatous, or lympho-sarcomatous origin. Examination of the blood showed only a doubtful increase of the white corpuscles. The patient was eager for some operation, and it was determined by Dr. Bigelow to explore a superficial ovoid mass, of the size of a pullet's egg, lying in the upper and anterior triangle of the neck, adjoining the sterno-cleido-mastoid muscle.

The patient was etherized as usual by the assistants in the etherizing room. During this process it was twice remarked that he was breathing badly, with laryngeal stertor, and it was decided to bring him into the theatre imperfectly etherized rather than to continue where he was. Placed in the operating chair, he was breathing with a croupy stertor which the usual expedients failed to relieve. The trachea was brought into the best position by extending the neck in a straight line; the lips were held open and the finger introduced by the side of the cheek to admit air over the base of the tongue. According to all rule, the laryngeal spasm should now have relaxed, the patient drawing a full breath; but the contrary was the case, and Dr. Bigelow directed that the tracheotomy instruments be placed in readiness. The tongue was now drawn forward with double-hooked forceps, but without avail; the pulse weakened, the breathing became shorter, and at last ceased altogether. The trachea could not be felt through the thickened tissues, but a free incision was made on the median line, disclosing large veins, which were avoided. The sterno-hyoid and thyroid muscles were rapidly separated, exposing an enormous plexus of distended and varicose veins in front of the trachea, and in fact surrounding it; but no time could be lost, the veins were rapidly torn asunder, the trachea exposed, incised, and a tube inserted. An abundant hæmorrhage occurred at this moment, from which it was impossible to protect the trachea. The tube was seemingly clear, and yet the patient could not breathe; it was withdrawn, examined, and reëntered to no purpose. Two minutes or more had elapsed since the patient had breathed, and the obstruction was evidently far out of reach. Just before this, Dr. Bigelow had called for a catheter, which was now brought and passed down the trachea into the chest, to a point below the obstruction. Air suddenly blown through this tube expelled the coagula above it and cleared the trachea. This was the key to the recovery; without it, the patient must have died; in fact it is difficult to conceive any other way in which the coagula could have been removed. Soon after, the patient made a slight effort to breathe, which, aided by artificial respiration for a few minutes, reëstablished this function. The vessels were tied, the operation was abandoned, and the patient put to bed and carefully watched.

Two days after, in the momentary absence of his attendant, the patient got up, and in so doing displaced the tracheotomy tube, which was deep in the thickened tissues; his breathing was arrested, and he was discovered insensible. He was revived, however, by the inflation of the lungs through the elastic catheter. In the middle of the night, twelve hours later, he had an attack of difficult breathing, and though he rallied and afterwards did well so far as respiration was concerned, he gradually sank, and died about nine hours afterward. His death was not connected with any difficulty of respiration, but with inherent prostration of the system, doubtless resulting from his disease. Although no autopsy was allowed, a microscopic examination of several of the tumors after death revealed an active and malignant form of lympho-sarcoma, which had very probably affected some of the viscera, or otherwise reduced his vitality.

This unusual and instructive case suggests important considerations, in respect to both anæsthesia and to resuscitation. In regard to anæsthesia, it may be stated that it is an almost unprecedented circumstance that a patient exhibiting laryngeal stertor, which is known to result from spasm of the vocal cords, should not relax these cords and spontaneously take a full inspiration as soon as the system peremptorily feels the need of air. In fact, it was remarked by Dr. Bigelow, while the patient was exhibiting these symptoms, that he would soon breathe freely. The result proved the contrary, and it has been in this connection a matter of great interest to have learned, since the patient's death, that during the last six months he had had several attacks of spontaneously obstructed respiration, accompanied with lividity and lasting for a considerable time. This fact points to an explanation of the above phenomena, in a probable derangement of the nervous mechanism connected with the existence of the sarcomatous tumors; perhaps involving the recurrent laryngeal nerves and inducing, as in certain cases of aortic aneurism, irritation of the glottis. As an expedient for the resuscitation of an asphyxiated patient, especially if the trachea be obstructed by coagula, mucus, or even water, the introduction of an elastic catheter deep into the chest, to a point below the seat of obstruction, must be considered of great value. This may be accomplished either through the mouth and epiglottis or by a tracheal incision. The hospital records of 1867 show that a patient asphyxiated with blood during the excision of an upper-jaw was brought to life by Dr. Bigelow, who inserted a catheter, first through the epiglottis and then through the neck. Air blown through a tube in this position not only inflates the lungs but expels the clots above it. It would seem proper that with apparatus for the resuscitation of drowned persons such tubes should be kept, together with knives and double hooks for the ready performance of tracheotomy, for this, in the collapsed condition of the veins in the adult, is a very simple and innocuous operation. A tube should be introduced not only just beyond the vocal cords, like the modern German contrivance, but deep into the lungs; the inflation would readily expel the water from the trachea and bronchi.

H. H. A. Beach, M. D., Surgeon to Out-Patients.

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SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

The following are the principal operations performed during the week ending Friday, January 22, 1875: —

1. Strangulated umbilical hernia. 2. Extroversion of the bladder. 3. Extraction of bullet from the orbit. 4. Excision of hip. 5. Tumor of face. 6. Stricture of œsophagus. 7. Excision of os calcis. 8. Double hydrocele. 9. Hydrocele of the cord. 10. Fistula in ano. 11. Caries of tarsus. 12. Necrosis of hard palate. 13. Ingrowing toe-nail. 14. Tonsillotomy. 15. Tattooing the cornea.

1. *Strangulated Umbilical Hernia; Herniotomy; Death.* — A widow, sixty-four years old, had had an umbilical hernia ten or eleven years. It had been reducible till a year and a half ago. She never wore a truss, but supported the tumor with a bandage. She weighed two hundred and fifty pounds. About thirty hours before entering the hospital she was attacked with nausea and vomiting, soon after going to stool. These symptoms, with pain, persisted till the time of the operation. There was a large, oblong, pendulous tumor, just below the umbilicus, nineteen inches in circumference. The upper part of the tumor was tympanitic; the lower, dull and indistinctly fluctuating. The skin was red, œdematous, and at the lower part threatened ulceration. There was a well-marked neck to the tumor. The bowels had not moved since the attack. Although the great danger of operating on an umbilical hernia was recognized, surgical interference seemed preferable to leaving the strangulation unrelieved. The patient was etherized, and an ounce of bloody serum was drawn off with a small trocar. No change occurring in the tumor, Dr. Cheever then performed herniotomy. An incision was made on the median line, six inches long, over the neck and upper part of the tumor. After going through a layer of fat two inches thick, the sac was reached and freely opened. A little serum

came out. The sac contained a large mass of omentum, and a piece of the small intestine, six inches long. The omentum was not inflamed nor discolored, but was firmly adherent to the sac at its lower part. The intestine occupied the upper and back part of the tumor, and was very dark. The two points of constriction on the gut were plainly visible, and the difference in the appearance of the strangulated and non-strangulated portions was very marked. The orifice in the abdominal wall was three fourths of an inch in diameter. This was enlarged, the intestine returned to its proper place, and the omentum allowed to remain in the sac, as the adhesions could not be broken up. The external wound was closed with silk sutures, and a compress and wide bandage applied.

The patient died in three days. After death the wound was reopened, and the intestines, in the vicinity of the strangulation, were found covered with lymph, and greatly distended by gas. The strangulated loop had recovered its color and circulation, and there were no signs of gangrene.

2. *Extroversion of the Bladder.* — The patient is a boy, six months old, well developed and healthy. The opening through the abdominal walls is an inch above the pubes on the median line, and is about half an inch in diameter. When the child cries or strains, there protrudes from this aperture a bright red, velvety tumor, nearly an inch in diameter. A catheter passed into the bladder through the urethra finds an exit through the abdominal opening, and about half of the urine also comes out of the same opening. There is no umbilicus, nor scar indicating the remains of one. The penis is normal, the urethra terminates normally, without hypospadias, and both testicles are in the scrotum. The folds of skin in the groin usually seen in these cases are full and large. There is no hernia, nor any other deformity, except the one above described.

Dr. Cheever dissected up the skin from the entire circumference of the orifice, and joined the freshened edges with six silver sutures on the median line. The opening was thus effectually closed.

3. *Extraction of a Bullet from the Orbit.* — A man sixty-three years of age shot himself in the head with a pistol. The ball entered the right temporal fossa, an inch behind the external angular process of the frontal bone, passed across the right orbit, through the nasal cavity, and lodged deep in the left orbit. The dura mater behind the right orbit was exposed but not lacerated. The nasal bones were shattered. Both eyes protruded and the man was totally blind, though at no time was he unconscious. The right eye had large subconjunctival ecchymoses on the globe.

Dr. Cheever made a horizontal incision through the base of the left lower eyelid, and passing beneath the globe of the eye to the back part of the orbit, the ball was found and removed. It was deeply furrowed, and weighed one hundred and thirty-three grains. The sight returned to the left eye after the operation, and the pupil became normal. The right eye was disorganized.

4. *Excision of the Hip.* — A boy thirteen years old received an injury to the right hip six months ago, and has been lame ever since. There was a large abscess over the trochanter, which communicated with the joint behind. There was partial anchylosis of the femur, the nates was flattened. the limb was a little elongated, and indistinct grating in the joint could be felt on rotating the leg.

The hip was excised by Dr. Thorndike. A V-shaped incision was made over the joint, the triangular flap turned up, and the capsular ligament and the structures attached to the trochanters were divided. It was found necessary to divide the bone just below the trochanters. The head and upper part of the neck of the femur were completely eroded, and there was a tubercular deposit in the medullary canal, extending nearly to the point of section. There were a few small patches of caries in the acetabulum, but not extensive enough to require any operative procedures.

5. *Tumor of the Face.* — Last spring the patient, a domestic, sixty years of age, noticed a small tumor on the left side of her face. It grew rapidly and was very painful till October, when it was removed by raising a flap from the cheek and scooping out the growth. Soon the disease reappeared, and the pain became so intense that the infra-orbital nerve was divided, subcutaneously, with temporary relief.

She entered the City Hospital about three weeks ago, with a tumor under the left cheek. The growth filled the antrum and was encroaching upon the orbit, so that the eye was very prominent and totally blind, and the lids were everted. The nares and mouth were also invaded by the disease. Externally the growth was firm, immovable, inclined to soften and break down in the centre. The pain was severe, and the patient begged that something might be done to relieve her. She was etherized, and an incision in the cheek gave exit to a considerable quantity of pus and blood. After a thorough examination Dr. Cheever decided to try to remove the growth. A semicircular incision was made from just outside the angle of the mouth, upward and backward to the external auditory meatus. The flap was quickly raised, the hæmorrhage being controlled by pressure. The anterior wall of the antrum and a portion of the floor of the orbit were absorbed, and the sight of the left eye was destroyed. The growth was removed mainly by tearing with the fingers, the muscles and fascia being divided with the knife, and the cavity of the mouth not being opened at all. The tumor came out quite clean and entire, and was three inches long by four wide. It was lobulated, juicy, and broken down in the centre. The microscope showed myriads of small round cells similar to those seen in a round-cell sarcoma. The wound was plugged with sponge dipped in ferric alum, and partially closed with sutures. The patient bore the operation remarkably well.

Geo. W. Gay, M. D.

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THE "ANÆMIC" SOUFFLE, AND FATTY DEGENERATION OF THE HEART.

Messrs. Editors, —The perusal of Dr. Chadwick's report of a case of immediate transfusion, in the Journal of January 14th, leads me to say a word in regard to the so-called anæmic souffle. Very few auscultators at the present time would, I think, attribute this murmur directly to an impoverished condition of the blood, or any other one condition in all cases (hence the terms inorganic and dynamic murmur); yet perhaps few are aware that fatty degeneration of the heart (in suggesting which Dr. Chadwick is entitled to all the honor of originality) has been recognized as one of the causes. P. Niemeyer[1] gives partial fatty degeneration of the papillary muscles as one of the causes of the *inorganic* murmur, on the authority of Friedreich; and Guttmann[2] with reference to this source of the murmur, refers to the experiments of Perl quoted by Dr. Chadwick.

It is certainly well for us to appreciate that a systolic murmur, which we cannot attribute to valvular lesion, may be due to one of several causes, some of grave and some of slight import, and that neither of the terms anæmic, transitory, inorganic, dynamic, is strictly applicable to all cases.

Yours respectfully, F. I. KNIGHT.

BOSTON, *January* 26, 1875.

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WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending February 6, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: influenza, bronchitis, pneumonia, and measles. One physician reports a case of cerebro-spinal meningitis under his observation.

In the Connecticut Valley: bronchitis, influenza, pneumonia, and rheumatism. Whooping-cough and diphtheria have subsided.

In the Midland section: influenza, bronchitis, pneumonia, and rheumatism. Small-pox is in the Blackstone Valley. Measles, croup, and scarlatina are less prevalent.

In Middlesex and Essex: influenza, bronchitis, pneumonia, rheumatism, scarlatina, and whooping-cough. Diphtheria is prevalent in Wakefield. In Lawrence, the mortality last week was the greatest that ever occurred in a single week in that city.

In the Metropolitan section: bronchitis, influenza, measles, pneumonia, and rheumatism. Croup, diphtheria, scarlatina, and whooping-cough are declining. The prevalence of influenza has become very general.

In the Southeastern sections and on the Cape: bronchitis, influenza, pneumonia, rheumatism, scarlatina, and whooping-cough. The last three diseases have increased in prevalence.

Among the Islands: bronchitis and influenza are the prevailing diseases.

Influenza may be said to be epidemic in all parts of the State, while bronchitis and pneumonia prevail very generally. The diseases of the respiratory organs have greatly increased in prevalence the past week, coincidently with the variable weather. Croup and diphtheria, however, have declined somewhat. Measles and scarlatina are as at the last report.

F. W. DRAPER, M. D., Registrar.

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[1] Handbuch der theoretischen und klinischen Percussion und Auscultation. Erlangen. 1870.

[2] Lehrbuch der klinischen Untersuchungs-Methoden. Berlin, 1874.

BOOKS AND PAMPHLETS RECEIVED.

Studies in the Facial Region. By Harrison Allen, M. D. J. B. Lippincott and Co. (Reprinted from the Dental Cosmos.)

Letter to a Committee of Citizens on the proposed Schuylkill Drove-Yard and Abattoir. By John H. Rauch, M. D. Philadelphia. 1874.

Nineteenth Annual Report upon the Births, Marriages, and Deaths in the City of Providence for the Year 1873. By Edwin M. Snow, M. D.

Transactions of the American Otological Society. Seventh Annual Meeting, Newport, R. I., July 15, 1874. (For sale by James Campbell.)

Experimentation on Animals as a Means of Knowledge in Physiology, Pathology, and Practical Medicine. By J. C. Dalton, M. D.

A Practical Treatise on Eczema, including its Lichenous and Impetiginous Forms. By Dr. McCall Anderson. Third Edition, With Illustrations. Philadelphia: Lindsay and Blakiston. 1875.

Report of the Medical Commission upon the Sanitary Qualities of the Sudbury, Mystic, Shawshine, and Charles River Waters. 1874.

Nineteenth Annual Report of the Trustees of the State Lunatic Hospital at Northampton. 1874.

Examination of the Urine. By George B. Fowler, M. D. New York: D. Appleton & Co. 1874.

Report of the Eastern Lunatic Asylum of Virginia for the Year ending September 30, 1874.

Thirty-Second Report to the Legislature of Massachusetts relating to the Registry and Return of Births, Marriages, and Deaths in the Commonwealth for the Year ending December 31, 1873.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING JANUARY 30, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
Philadelphia	775,000	390	26
Brooklyn	450,000	239	28
Boston	350,000	184	27
Providence	100,000	39	20
Worcester	50,000	24	25
Lowell	50,000	17	18
Cambridge	44,000	23	27
Fall River	34,200	21	32
Lawrence	33,000	14	22
Springfield	33,000	8	13
Lynn	28,000	11	20
Salem	26,000	12	24

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.
VOL. XCII. — THURSDAY, FEBRUARY 18, 1875. — NO. 7.

ON THE TREATMENT OF SUSPENDED ANIMATION IN NEW-BORN CHILDREN.

NOTES OF A LECTURE AT THE HARVARD MEDICAL SCHOOL.

BY CHARLES E. BUCKINGHAM, M. D.,
Professor of Obstetrics.

WITH some obstetricians, the condition of the new-born child, compared with that of the mother, is of secondary consequence. I confess it is so in my estimation. This is a matter which depends upon the religious views of different individuals, and of course is not to be here discussed. Both the mother and the child require attention, and you can oftentimes give directions for the benefit of the child while you are making the required pressure over the uterus which has just expelled it.

Sometimes the child cries lustily as soon as it is expelled. Sometimes it gasps feebly, with long intervals between its respirations, which may of themselves become more frequent and stronger, or less frequent and more feeble. It may come into the world blue and flabby, and without a visible sign of life. If there be beating of the umbilical cord, however, there will almost certainly be a gasp, and that gasp may be repeated; or if not repeated unaided, your assistance may restore the child to life. Even if there be no pulsation to be seen or to be felt, you may in some cases hear it by putting your ear over the heart. You need not trouble yourselves about a ligature upon the cord; make the child breathe. And for this end it is not worth while to spend time in trying the Marshall Hall method; you have a chest to deal with which has never been expanded, and a pair of lungs which have never been inflated. Send for a couple of pails of water, one cold and the other rather warmer than it would be comfortable to take an entire bath in. A child who has never breathed, if rapidly dipped in these alternately a few times, will often cry audibly. But you must not wait for the pails of water before trying other measures to make the child breathe; if you do, it will be just so much neglect. With a dry rag over your little finger, thoroughly wipe the mucus from the fauces; that operation alone will make some children cry. Take the child up in a dry towel, or a pocket-handkerchief if you have one at hand, or in anything which will keep it from slipping from your grasp ; hold it with the scapulæ in the palm of your left hand, the fi and thumb embracing the occiput, which should be firmly pressed b wards ; the finger and thumb of the right hand should close its nost Apply your mouth to that of the child and try to inflate its lungs ; need not fear that you will blow too hard ; indeed, unless you pla moderately dry cloth between the child's mouth and your own, will find it difficult to inflate at all. But why press the head for backwards ? Because in so doing you close the passage of the œso gus ; and should you neglect that precaution, you would find the ston inflated instead of the lungs, and a new obstacle thus put in the wa the child's breathing, by your own carelessness.

You should inflate the lungs ten or fifteen times in a minute ; the process should be continued as long as there is the slightest p bility of life. The occasional alternate dipping will help your eff In some cases, a rapid and more forcible pulsation of the heart is by you upon your very first insufflation, and this, as a rule, will repeated and increased in strength with every succeeding attempt, u as you take your lips away you will each time see the child gasp, o its eyes, heave its chest, and at last cry. The color, which has b leaden and dull, becomes of a positive red. The points upon which placed your fingers, before the operation, became white, and remaine long enough for you to count twenty or more ; but now the c returns more and more rapidly, and you will find, as the child's re rations become independent of your aid, that the color returns alm immediately on the removal of the pressure.

Be sure that all chance of life is gone before you stop your e tions ; I have known an infant, who was laid aside in a sheet as dead one of our profession, to live to adult age. So long as the breath child is cool, if pulsation exists even to a slight degree, life is still p ble. Excess of heat to such a child will diminish its chances for Why, then, you may ask, do I dip it in hot water, as well as in cold make it breathe ? Simply as a stimulant to its skin. It is not to be in the hot water an instant ; it is dipped in hot water for the same son that I would spank it, or slap it with a wet towel, the object be to irritate its nervous system and make it cry.

If you will now simply wrap the resuscitated infant in a blan and leave him without washing or dressing or food for a few hours, will be better off than if you weary him with further attentions.

ON THE TREATMENT OF OPHTHALMIA OF NEW-BORN CHILDREN: A REPLY TO DR. WILLIAMS.

BY HASKET DERBY, M. D.

IN a very practical and useful article on the ophthalmia of new-born children, published in the JOURNAL of January 28th, Dr. Williams takes occasion, while on the subject of treatment, to condemn the use of any solution or preparation of nitrate of silver. He admits that, if strict attention be paid to cleanliness, cases thus treated *may* perhaps do well. But the remedy he regards as a dangerous one, and liable to cause agonizing pain.

Such wholesale condemnation, coming from a surgeon of Dr. Williams's large experience, and from one who occupies, moreover, the official position of a teacher of ophthalmology, cannot be passed over in silence by those members of the profession who pin their faith on the practice which he reprobates. The affection of the eye under consideration occurs so frequently, and the consequences of its neglect or maltreatment are often so appalling, that any suggestions as to the proper course to be pursued, or the remedies to be employed, have an interest for the profession at large, into whose hands these cases generally fall. With all respect, therefore, for the sincerity of Dr. Williams's belief, I would state that he stands comparatively alone among ophthalmic surgeons in discarding the use of nitrate of silver in the ophthalmia of new-born children. The great majority regard it as their sheet-anchor. Witness the following quotations: —

"The principal remedy is the cauterization with nitrate of silver."[1]

"The beneficial effect of cauterizations is first manifested in a diminution of the purulent secretion. When regularly made, a profuse purulent secretion seldom resists the application of caustic."[2]

"Nowhere is the sovereign effect of cauterizations more brilliantly manifest than in the treatment of the purulent conjunctivitis of new-born children; by applying them with exact care we can almost invariably avoid dangerous corneal complications, and see this dreaded disease assume, on our hands, a relatively benignant character. But these cauterizations must be carefully made; indeed, in cases where swelling and secretion are very marked, it may sometimes be necessary to make them twice a day."[3]

"If the patient can be seen every day, or even more frequently, the mitigated nitrate of silver, in substance, should be used, as we can regulate and localize its effect far better than can be done if injections or collyria are employed."[4]

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[1] Tetzer, Compendium der Augenheilkunde, S. 25.

[2] Schweigger, Handbuch der speciellen Augenheilkunde, S. 354.

[3] Wecker, Études ophthalmologiques, Tôme 1, page 63.

[4] Soelberg Wells, A Treatise on Diseases of the Eye, page 39.

I have purposely selected these four authors as exponents of the four leading European schools. The first represents the practice of Arlt, of Vienna, the Nestor of the teachers of the day, renowned not only for his dexterity as an operator, but for his intimate knowledge of conjunctival affections and rare skill in their treatment. The second gives the views of the school of Graefe. The author of the third holds the largest clinique in Paris at the present time. And, finally, Mr. Wells gives us the practice of Moorfields Ophthalmic Hospital, the largest in the world.

Having thus witnessed the dissent of the ophthalmic world at large from the views held by Dr. Williams, let us inquire into the circumstances under which nitrate of silver is generally used in this disease, and the form and manner of its application.

During the first days of the attack, while the lids are stiff and tender, and the discharge either absent or scanty and thin, cold applications are those best borne. Compresses dipped in ice-water and laid on the eyes, or frequent gentle sponging with water as cold as the child will endure, are our sole resource. But as soon as the purulent secretion commences, more energetic measures must be taken. The usual method of examining the eyes and of making the application is as follows. The nurse, or assistant, and the surgeon occupy chairs placed at right angles to each other. The former holds the child on the lap, its back to the surgeon, and gently lowers its head between his knees, which should be protected by a rubber sheet. The head is thus perfectly secured, and, the hands being held by the assistant, the feet may be left free. With a bit of soft sponge dipped in lukewarm water the lids are now thoroughly cleansed and separated, the thick secretion that wells from between them and covers the surface of the eyeball being entirely removed. The elevator may now be used for the careful inspection of the cornea, which can be examined at this time more advantageously than later. This done, the upper and lower lids are everted, as much as possible of their conjunctival surface being exposed. Being freed from secretion, a large camel's-hair brush, dipped in a solution of nitrate of silver of ten grains to an ounce of water, is passed over them, next dipped in cold water and applied several times more, the lids being then replaced. The pain, acute at first, soon subsides. During the remainder of the day the strict cleanliness, so justly insisted on by Dr. Williams, will alone need to be enforced, unless, indeed, the state of the cornea requires the instillation of atropine. Only in exceptional cases will the caustic application require to be repeated towards evening; never unless the slight pellicle formed after the morning's treatment has been thrown off. If now, in spite of thorough treatment of this nature, the disease advances, the swelling and discharge increasing, and the cornea becoming more involved, we must have recourse to the stick of nitrate of silver fused with twice its bulk of nitrate of potash, the *lapis mitigatus*, Graefe's favorite remedy, and one so successful in his hands. This is brushed over the everted lids, and then at once washed off with free applications of cold water.

If this plan of treatment be carefully followed, its good effect is soon manifest; in many cases improvement is immediate. I contend that these are *not* dangerous remedies, but valuable and indeed almost indispensable means of effecting a cure, approved as such by general experience. True, they cause temporary acute pain, but this quickly subsides. Let it, moreover, be borne in mind that this supersedes all other treatment, except the strictest attention to cleanliness. Could the children speak, I feel sure they would loudly proclaim their preference for the single daily application of nitrate of silver over the injection of sulphate of zinc, or even alum, made much more frequently.

I do not hesitate to advise any surgeon who is in doubt as to which method to adopt, to take his next case of ophthalmia neonatorum in both eyes, treat one eye by the milder method and the other by the one here described, and be governed by the result.

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CLINICAL NOTES OF CASES OF RHEUMATISM.

BY R. T. EDES, M. D.,

Visiting Physician at Boston City Hospital.

The following table presents a summary of sixteen cases of acute articular rheumatism treated with alkalies in large doses. The duration of the disease in these cases is reckoned from the occurrence of severe pains, redness and swelling of the joints, or of symptoms of sufficient severity to compel the patient to go to bed. Preliminary soreness and aching are not taken into the account.

These cases were all submitted to the alkaline treatment, the standing orders being that "Chambers's mixture" should be administered to every patient admitted on the south side with acute rheumatism, at short intervals, until the urine became alkaline, when it was to be diminished or suspended. Chambers's mixture contains acetate and carbonate of potassa, in the proportion of thirty grains of each to the ounce. The usual dose is half an ounce. A few of these cases call for some remarks beyond those given in the table. The "days to relief" usually means "to very distinct and decided relief of the pain," although, as will be noticed, it was in some cases much more than that.

Case I. — Jane S. was a heavy, lymphatic Irishwoman, of whom it was remarked soon after her entrance that she would be enough to spoil anybody's statistics, which proved to be the case. The treatment

CLINICAL NOTES OF CASES OF RHEUMATISM.

No.	Name.	Age.	Previous Sickness.	Days Sick before Admission.	Days to Relief.	Days in Hospital.	Complications, chiefly Cardiac, before Entrance.	Complications on Leaving.	Remarks.
1	Jane S.	40	Rheumatism, one year ago	6		105	None.	None	Discharged much relieved.
2	Geo O.	19	Rheumatism, seven years ago	5	Up and about. 6	11	Slight systolic murmur at base to left of sternum.	None.	Discharged well.
3	Fanny R.	15		5	8	41	As in case 2: also some irregular palpitation and dyspnœa.	Not noted.	Discharged well
4	Alice M.	30	Rheumatism, ten years ago; intermittent.	3		23	None	None.	Discharged well.
5	Isaac L.	21		6	3	29	None	None.	Discharged well
6	Kate T	24	Typhoid, one year ago.	5		39	Systolic murmur, most distinct at base but audible at apex.	Systolic murmur more distinct at apex.	Discharged relieved.
7	Bridget M.	20	Rheumatism, one year ago.	3		10	Says she has had palpitation.	Not noted.	Discharged well.
8	Catharine R	40	Cough, all winter.	4		11	Pain in left side. A little dullness at left base.	Heart's sounds faint, but no murmur.	Discharged against advice, and not relieved. Died.
9	John D. B.	25		14	2	7	Prolonged systolic murmur at apex.	Same as on entrance.	Discharged well.
10	Chas F. I.	28	"Fever," four years ago.	30	1	30	Systolic murmur at apex	Same as on entrance	Discharged relieved.
11	Jane H.	17	Rheumatism, five years ago	4			Loud pericardial friction sounds. After two days, systolic murmur at apex heard.	Pericardial sounds disappeared, endocardial remain.	Acted as assistant in ward for a long time before discharge upon books.
12	Patrick D.	22	Rheumatism, four years ago	7		10	None.	None.	Discharged well
13	Courtney M.	25	Rheumatism, six and two years ago.	2	6	35	Slight roll or rub, with first sound.	Nothing noted.	Discharged well.
14	Thos. J. R.	17		6	Up and about. 4	14	Diastolic murmur, second right intercostal space. Systolic murmur outside nipple.	Slight murmur at apex.	Discharged well.
15	Michael W.	17				4	Systolic murmur at apex.	Not noted.	Discharged well.
16	Michael K.	16		4	5	37	Very slight systolic murmur at left of sternum.	After nine days, sounds loud but normal.	Discharged relieved.

consisted of opiates, quinia, and iodide of potassium, as well as of alkalies, which were omitted and resumed several times.

Case III. — There was no reason to suspect any organic disease of the heart.

Case VI. — Kate T. returned to the hospital after about four weeks, complaining of some pain in the joints. She was then treated with iron and digitalis.

Case VII. — Catherine R., two weeks before she entered, had a chill and a sharp pain in her left side, with frequent and painful cough. The time given in the table (four days) is that during which the joints were much more painful and swollen. After about ten days in the hospital, this patient became delirious, and the temperature rose to 101°. She is said to have died, after leaving the hospital contrary to advice. It is probable that pleurisy was the condition when she was first attacked, and a pericarditis beginning either at that time or subsequently would perhaps account as well as any theory for the course of the disease, although there was no symptom to indicate it positively, except the faintness of the heart's sounds. Percussion and auscultation, especially of the back, could not be very thoroughly carried out.

Case XI. — Here the pericardial friction sounds disappeared at some time between the fourteenth and the eighteenth day after entrance. Pain in the cardiac region continued longer. She made quite an active assistant in the ward, notwithstanding the endocardial (mitral) lesion.

Case XV. — Michael W. was a young Jew, who entered the hospital as rheumatic, though complaining of nothing but cold feet, which being relieved, he was discharged. His second entrance, a fortnight afterward, when the symptoms were more decided, is that which is recorded in the table.

The murmurs in Cases II., III., and XVI. were undoubtedly merely anæmic.

The following cases of pericarditis cannot properly be included in the above list: —

Edward K., aged sixteen, entered April 20th. Five weeks ago he had pain in the knees, but kept at work for a week; then followed chill and pain in other joints, and he was sick in bed two weeks; a week ago he went to work, with some pain. Two days ago there was sharp pain in left chest, dyspnœa, and palpitation. He now has loud friction sound over the whole heart. Respiration 42. Pulse 135. Temperature 102.8°. He has some pain in the knee, but the joints are not much swollen or tender. Blister and Chambers's mixture were ordered. In four days the friction sound extended over a smaller area. On the 25th he slept better. On the 27th the area of cardiac dullness was much increased. After this, he was treated with tonics, cathartics, digitalis, and mild counter-irritation. The friction sound disappeared, but a strong systolic murmur remained. He got fat, looked comfortable, and went out relieved.

Lizzie B., aged nineteen, entered hospital June 3d. She was pale, and wore an anxious, frightened look. She told a story of having been enticed into a house of ill-fame, where she was abused, jumped upon, and pounded. This was probably false. She had red and excoriated patches of irritated skin on the nates and inside of thighs. The vulva was red and swollen, with a purulent secretion.

June 7th. Has complained of pain in the side for two days (supposed to be owing to bruises). Felt cold last night. Had some incontinence of urine. Breathing shallow and rapid. Pulse 100. Loud friction sound over heart. Poultice and Chambers's mixture ordered.

June 8th. In addition, some pain in small joints of both hands. Cotton jacket and cotton batting to joints.

June 10th. Friction sound remains. Has pain in knee, but less in hands. Has been passing water in bed for last three days. Has considerable cough, but no additional physical signs.

June 13th. Heart sounds at apex normal. Friction sound at base. Area of heart's dullness enlarged.

On the 18th of June her temperature was noted at 103°, and June 19th she died.

Wm. P., aged twenty two, born in the Shetland Islands, entered the hospital February 25th. Two weeks before, his feet and knees were red and swollen. Four days before, there was an uneasy feeling about the heart, with palpitation. There was roughening of first sound. The treatment consisted of iron, iodide of potassium, and cod-liver oil.

April 1st. He was sitting up, looking feeble and anæmic, complaining of some, but not severe pain. Tonics were continued.

April 13th. Dyspnœa, with pain in chest, last night. At apex, loud murmur, replacing first sound, heard outside of nipple, where, also, impulse is strongly felt. Pulsations are irregular, with an occasional thrill. At level of third rib, both sounds are distinct.

April 27th. A second attack of dyspnœa led to another physica exploration, which discovered a superficial friction sound.

April 31st. Several sounds were noted, one along left edge of sternum, rough. Soft systolic murmur at apex (probably that of Apri 13th). Another (rough) with second sound.

May 8th. Impulse very strong and irregular. Friction sound ha disappeared. Area of heart's dullness considerably increased, extendin an inch and a half outside of nipple. Apex beat in fifth intercost space.

May 11th. Died.

RECENT PROGRESS IN OBSTETRICS AND GYNÆCOLOGY.

BY W. L. RICHARDSON, M. D.

OBSTETRICS.

Chloroform as an Anæsthetic. — Dr. Zweifel reports[1] the results of some experiments which he made, with a view of ascertaining the effect on the child in utero of chloroform administered to the mother. He invariably found that chloroform was present in the urine of children whose mothers had been under the influence of chloroform during parturition, and also in the placenta. Dr. Zweifel questions whether the administration of chloroform may not be found to have a very deleterious effect on the fœtus in utero. Not unfrequently children are born asphyxiated under such circumstances. It is also very noticeable that many children suffer, soon after birth, from jaundice, when the mother has been under the influence of chloroform during her labor.

Uterine Souffle after Confinement. — M. Bailly reports[2] some interesting facts which he has obtained from a careful examination of seventy-eight women. A bruit was discoverable sixty-eight times. In the large majority of cases the tone was soft, liquid, and prolonged. It was always intermittent, the duration being longer than the pause. The intensity about equalled the souffle heard between the fourth and fifth months of pregnancy. The larger the uterus, the louder the sound. Three or four times it was as loud on the morrow of the confinement as at the end of pregnancy. The sound was generally heard over the sides or over the lower half of the uterus, rarely over the superior half. It predominates on the left side. The maximum time during which the bruit was heard after delivery was one hundred and thirty-eight hours; the minimum, ten hours; the mean, sixty-three hours. The uterine contractions, the fœtal death occurring in utero long previous to the delivery, and profuse hæmorrhages, all tend to influence the force and duration of the souffle. The first of these circumstances enfeebles the sound, the last two increase its tone. The origin of the sound is the passage of blood from the smaller into the larger vessels or sinuses.

Uterine Thermometry. — Dr. Schlesinger reports[3] the following results of a long series of investigations made with a view of ascertaining if it was possible, by means of the thermometer, to diagnosticate pregnancy during the earlier months. The temperature of the uterine cavity is higher than that of the vagina. The pregnant uterus has a higher temperature than the non-pregnant.

Recognizing the fact that the temperature of the uterus, both in the pregnant and in the non-pregnant condition, is higher than that of the vagina, Schroeder considers that the death of the fœtus may be inferred in those cases in which the difference between the vaginal and uterine temperature is either very slight or imperceptible; since, when the fœtus dies, it abstracts some heat from the uterus itself, and thus equalizes the temperature of the uterus and vagina.

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[1] Berliner klinische Wochenschrift, May 25, 1874.

[2] Archives de Tocologie, 1874; London Medical Record, October 21, 1874.

[3] Allgemeine Zeitung, March 10, 1874.

Induction of Premature Labor. — Dr. J. G. Swayne reports[1] twenty cases in which he induced premature labor; seventeen were multiparæ and three primiparæ. In one case the operation was performed three times, and in three cases twice on the same subject. Fourteen of the operations were performed anticipatory of craniotomy, owing to a deformed pelvis; three times the labor was induced owing to obstinate vomiting, and three times for albuminuria threatening convulsions. Three of the mothers died, two being *in extremis* when the operation was performed. Eleven of the infants were still-born, and two of those born alive subsequently died. In seventeen cases labor was induced by a gradual dilatation of the os uteri by means of carbolized sponge tents. This method of procedure Dr. Swayne recommends as more nearly resembling the natural processes than any other. The time occupied in bringing on the labor in these cases varied from six hours to sixteen days.

In cases where prompt delivery is necessary, the use of Dr. Barnes's elastic bags is more sure and rapid in accomplishing the desired object. In all other cases, Dr. Swayne considers a gradual dilatation a far safer method of procedure.

Prof. Carl Braun opposes[2] the use of sponge tents as being often productive of most serious if not fatal results. Parametritis and pyæmic symptoms frequently arise from the absorption of the foul discharges which always follow their use. He advises in preference to all other plans the method, now universally adopted in Vienna, of the introduction of a pointed quill by means of a uterine sound passed through a small opening made in the side. This being introduced, the sound is withdrawn, and the membranes ruptured by the quill. The amniotic fluid drains away, and, labor pains soon beginning, the delivery is usually effected within twelve hours.

Rigor following Delivery. — Dr. Pfannkuch offers[3] the following explanation of the rigor which is so frequently observed to follow the birth of a child. According to experiment, the fœtal temperature has been shown to be nine tenths of a degree higher than that of the mother. The maternal temperature, however, being unaltered, it is evident that the pregnant woman must be producing less warmth than the non-pregnant. When the fœtal source of heat is removed by the birth of the child, there is produced at once a disproportion between the amount of heat produced and that given off. The rigor is caused, therefore, by the efforts made by nature to establish an equilibrium.

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[1] British Medical Journal, August 8, 1874.

[2] Philadelphia Medical Times, January 23, 1875.

[3] Archiv für Gynækologie, iv. 2.

The same rigors are frequently noticed when the child dies during pregnancy. In several cases which Dr. Pfannkuch has recently seen, where the mother gave birth to a dead child, no rigors followed the birth; and this would serve to strengthen the theory by which this observer endeavors to explain a symptom so frequently noticed by accoucheurs.

Puerperal Fever. — In the address in obstetrics, delivered at the last annual meeting of the British Medical Association,[1] Dr. J. Matthews Duncan stated that it was his belief that nearly one in every one hundred women, delivered in Great Britain at or near the full time, died in parturition or before the puerperal state and its effects had passed away. In addition to this startling mortality, parturition brings with it a vast amount of disease and suffering which does not end fatally. By far the largest number of deaths are due to puerperal pyæmia, a term which Dr. Duncan would substitute for the erroneous one of puerperal fever, since there is nothing essentially puerperal known in it, nor anything of the nature of a fever as that term is generally understood. All evidence brings the disease into the closest alliance or identity with surgical pyæmia. It is a disease always present; but never has it been shown to possess an epidemic character. It varies in its ravages just as pneumonia does, but in a very different manner from what is found to be the case with cholera or scarlatina. The puerperal woman presents a most favorable nidus for the reception of morbific material in her contused and lacerated passages, and patients suffering from puerperal pyæmia, or any allied diseases, offer this morbific material in its most potent essence. No other well-demonstrated communicability has ever been proven, as tending to show that this disease is either contagious or infectious. The same laws of pathology govern lying-in hospitals as govern all hospitals, and it is absurd to claim that any greater danger exists for patients in one than for those in the other. Beyond question, pyæmia is a septic disease, and puerperal pyæmia may be almost if not altogether prevented by the application to delivery of a practice based on antiseptic principles.

In a carefully prepared treatise on Erysipelas and Puerperal Fever, recently published, the author, Dr. Thomas C. Minor, gives in detail an account of both diseases as they prevailed sporadically in the United States during the year 1870, and also the history of a puerperal fever epidemic observed in the southwestern part of Ohio in the winter of 1872. The facts, as given by Dr. Minor, appear to establish the fact that erysipelas and puerperal fever seem to prevail together throughout the

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[1] Obstetrical Journal of Great Britain, September, 1874.

United States, and that any marked increase of one disease in any particular locality is always followed by a corresponding increase of the other. Infants die of erysipelas shortly after or before their mothers die of puerperal disease.

M. Chauffard[1] considers that any disease which produces morbid discharges may give rise, in women recently confined, to puerperal fever. During his service at the Neckar Hospital, he has frequently remarked that the opening of an abscess, or the presence in the wards of purulent ophthalmia or erysipelas, is sure to be followed in a short time by puerperal troubles of greater or less severity.

Absence of the Fœtal Pulse during Extraction by the Feet. — Professor Dohen, of Marburg, reports[2] two cases where, during an extraction by the feet, the fœtal pulse ceased for a considerable length of time, and yet with no fatal result to the child. In both cases the pelvis was contracted, and the pulse was distinctly felt to cease beating as the after-coming head descended into the pelvis. In the first case the cardiac pulsations were suspended for at least two minutes, and in the second case for more than three minutes. In the first case the baby, a girl, was reanimated in a warm bath after about a quarter of an hour's effort; but in the second case the measures to resuscitate the infant, a boy, were continued for half an hour before the frequency of the inspiratory and pulse movements became normal.

Professor Dohen considers that the arrest of the heart in these two cases was due to the compression of the brain and irritation of the pneumogastric. In cases where the arrest of the heart's beat is due to asphyxia there is but little hope of saving the child's life, but where the action of the pulse is slackened or arrested by compression of the brain, a rapid extraction of the head will usually be sufficient to save the life of the infant.

These views are strictly in accordance with the theory of Leyden,[3] who has shown that the compression of the brain which slackens the heart's beats may also completely arrest them, and that this action is produced by the help of the pneumogastric.

The Tensile Strength of the Fœtus. — Dr. J. Matthews Duncan reports[4] a series of experiments undertaken to ascertain the amount of force which can safely be applied in effecting the delivery of a child. The body of a new-born baby was passed through an aperture so cut in hard wood as to represent the brim of a contracted pelvis. Above the ankle, an apparatus was applied by which weights could be suspended. The amount of the weights used was to be gradually increased until the body of the child was dissevered. In order to bring the experiment into conditions analogous with those of labor, the weights were allowed to operate for only half a minute at a time. In each experiment the separation took place at the neck. The decapitating force varied from ninety-one to one hundred and forty-one pounds, giving, therefore, an average of about one hundred and twenty pounds.

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[1] Gazette Hebdomadaire, October 16, 1874.

[2] Obstetrical Journal of Great Britain and Ireland, January, 1875, from Archives de Tocologie, October, 1874.

[3] Virchow's Archiv, xxxvii. 4.

[4] British Medical Journal, December 19, 1874.

The life of the child is, of course, compromised before the limit of the tensile strength of the fœtus is reached, since the destruction of the spinal column occurs under the application of a force considerably less than is required to produce decapitation.

In these experiments it was found that the cervical part of the vertebral column first gave way, allowing the dissevered vertebræ to become widely separated before actual decapitation took place. While one hundred and five pounds sufficed to separate the cervical vertebræ, an addition of fifteen pounds was required to decapitate. In all cases the vertebral column yielded with a jerk, followed by a marked elongation of the fœtal body. This fact is therefore one of great importance to the accoucheur if he wishes to avoid decapitation. It was further found that a single limb, so far as strength was concerned, sufficed to effect decapitation by traction.

These experiments are of great value as regards the force that may safely be employed in podalic extraction; but it was found a far more difficult problem to ascertain the power that may safely be applied in extracting a child with the forceps. In this latter case, a far greater force can be exerted than in the former. It has been proven that it is possible to apply the forceps to a fœtal head at the brim of an actual pelvis so as to defy the utmost efforts of the most powerful accoucheur. The fœtal head is firm enough to resist a dragging force far greater than can be used in podalic extraction.

(*To be concluded.*)

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PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M. D., SECRETARY.

DECEMBER 28, 1874. *Ovarian Cyst.* — A fine specimen of a monocyst holding five gallons of fluid was exhibited by DR. W. G. WHEELER, of Chelsea, who related the following history of the case. The patient was a feeble woman, fifty-four years of age, who had been delivered of five still-born children. She was small in size, of medium height, and much emaciated. She said that the abdomen had been gradually enlarging during the last five years, and now (December 17, 1874) measured fifty-two inches. There was a distinct wave on percussion. Resonance was found in both flanks but not in front. The patient has never experienced much pain, although the mechanical distention during the last two years has been a source of distress. The stomach and bladder proved troublesome at times; the uterus was healthy and movable with but little displacement; there was no œdema of the lower extremities or any evidence of disease in other parts of the body. After a few days' consideration the patient desired to take the chances of an operation for the removal of the cyst.

On the 25th of December, at 12 M., the operation was performed. The patient, being feeble, took some beef tea, and at a later hour, just before etherization, took a table-spoonful of brandy. An incision two inches long in the median line through the thin abdominal walls exposed the firm, shining cyst. There were no adhesions, as the sound swept freely in every direction. The tumor was punctured with Spencer Wells's trocar, and forty pounds of straw-colored fluid were evacuated. The cyst was drawn without difficulty through the slight opening; a small pedicle was clamped, and divided with scissors; the wound was then closed by five wire sutures. The patient took the ether kindly and recovered from it without excitement or vomiting; she complained of little or no pain in the abdomen, feeling only a sensation of general weakness; the surface of the body was cool. Warm dry sand-bags were applied to the extremities, with brandy and small fragments of ice by the mouth. The patient slept quietly and at short intervals. Reaction followed in about two hours after the operation, and small quantities of beef tea were swallowed, and the same with brandy was given per rectum. The following night was passed in comfort, with sleep at intervals; pain was not sufficient to require an opiate.

The next morning there was but little abdominal pain or tenderness, and no tympanites; the kidneys acted freely, the bladder being evacuated every three hours.

The second day the pulse rose to 120 and the temperature to about 101°, the respiration being 26; the color and expression remained good; during the day the patient took a fair amount of beef tea, milk, ice, and brandy; as night approached there was some restlessness, with a slight acceleration of pulse; temperature rose gradually to 102.5°; the breathing was much quickened. A moderate dose of morphine was taken, which gave quiet and some sleep at shor intervals. Toward morning the patient awoke with acute pain in the righ side, extending up under the scapula. There was some difficulty in breathing with anxiety of countenance, and the pulse began to flag. A marked chang soon followed. Stimulants were accordingly pushed, with the addition of quinine ammonia, and camphor by the mouth and by the rectum; but the patient sank apparently from exhaustion. No autopsy was permitted.

Dr. Wheeler believed this case presented a few interesting questions of practical nature. What was the cause and significance of the pain in th shoulder? It seemed to be the first indication that some change for the wors was coming. A second question is whether from the benign character and th gradual development of this cyst, an operation two or three years earlier woul not have given her a better chance of recovery. The operation is gener ally delayed till the golden hour has passed. Many physicians, as well most patients, consider ovariotomy as the "forlorn hope." Would not Amer can statistics in this department show better results if patients were presented at an earlier stage to the ovariotomist? Then other elements could come into the calculation and serve to fix the best time for operation; for instance, polycystic growths are more rapid in their course, more liable to contract adhesions, as well as to break down the general health.

Molluscum Fibrosum. — DR. GREENOUGH showed a pedunculated tumor, about the size and shape of a large grape, which he had removed from the shoulder of a young man. The patient had noticed the existence of the growth for six or seven years, but could not say that it had not been there before. It had doubled in size in the last year and was beginning to be a source of annoyance. Dr. Greenough said that this was a very different thing from the molluscum contagiosum, which was an affection of the sebaceous glands, while the tumor in question was simply an hypertrophy of the subcutaneous cellular and fibrous tissues. With regard to the contagiousness of molluscum contagiosum, he said that, although it seemed incredible, he had noticed that all the cases which had come under his observation at the Boston Dispensary had come in groups of two or three from the same family.

JANUARY 11 1875.— *Malignant Disease of the Œsophagus.* — DR. JACKSON showed the specimen, which he had received from Dr. Ham, of Dover. Three months ago the symptoms became severe, and from that time the patient could not swallow solid food, though liquids were swallowed till the last. The voice was unaffected, but the respiration became difficult before death, and sometimes there was a feeling of suffocation.

The disease was situated at the upper part of the tube, was three or four inches in extent, and involved a large part of the circumference, but the calibre was not diminished. The anterior portion of the œsophagus being mostly affected, the disease had extended through and appeared to some extent upon the inside of the trachea, but it had not gone on to ulceration. The ulceration of the œsophagus was irregular in its outline, but defined, penetrating through to the subjacent tissues, and at the upper part almost to the cartilages of the larynx; in its general appearance showing those characters of malignancy that are often seen but are not easily described.

DR. FITZ reported concerning the histological nature of the tumor. The growth, mainly seated in the deeper layers of the œsophagus and trachea, was composed of spindle cells with but little granular and fibrillary intercellular substance. The œsophageal surface over the lower portion of the tumor was extensively ulcerated, while that upon the upper portion, behind the larynx, presented clusters of large papillæ, one, just below the arytenoid cartilages, forming a fungous excrescence three quarters of an inch in diameter and one quarter of an inch in depth. The papillæ were large and rich in spindle cells. The growth would therefore be considered as a combination of medullary sarcoma and papilloma.

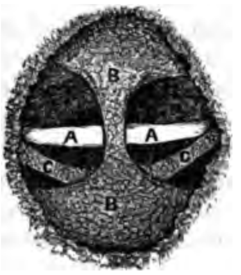
DR. JACKSON remarked upon these affections of the œsophagus as not at all rare, and upon the frequency with which the trachea is involved. Scarcely any two are alike, and yet they bear a certain general resemblance to each other. Although generally at the upper part of the tube, they are sometimes lower down, and are very often mistaken for cases of simple stricture. Of this last disease Dr. Jackson had met with but a single case, post-mortem; the disease, as suggested by some members of the society, not proving fatal in this stage, but taking on a malignant character subsequently. He believed, however, that most of the cases that he had seen were malignant from the commencement; some years ago one of our best diagnosticians reported to the society a case of several years' duration, and which he felt quite sure was one of simple stricture; but within two weeks the patient died, and, on examination, Dr. Jackson found the disease to be malignant. Another case was that of a man who used to go to the hospital to have a probang passed for stricture of the lower part of the œsophagus. He at last died rather suddenly from intestinal hæmorrhage, and Dr. Jackson found a limited but well-marked encephaloid disease not far above the cardiac orifice of the stomach; and that was the source of the hæmorrhage. The patient used to be much relieved by the probang, which probably broke down the soft encephaloid growth, thus for a time clearing the passage.

Dr. Cabot said that he had had a case that had been entirely cured by one thorough dilatation with a probang. In answer to a question, he said that the patient was not a female.

Dr. Ware said he remembered a case in which he had used a probang with relief, two or three times a year, for over twenty years. During the last year the disease apparently became malignant, and resulted fatally. Another case did well for two or three years, and then passed from his observation. He also spoke of a third case, where the patient, a lady, had for the last thirty years passed a probang herself.

Dr. H. K. Oliver said that he knew a lady seventy-nine years old who had not been able to swallow solid food since her sixteenth year. Otherwise she was in perfect health. In former years, persistent use had been made of the probang, but with only slight and temporary relief.

An Anomalous Ligament. — Dr. Beach showed a preparation and photograph which displayed a ligament observed by him while dissecting a head and neck for demonstrating the ligamentous structures of the occiput and upper vertebræ. It was a firm, tendinous band (A) extending transversely across the foramen magnum, in front of the vertical portion of the crucial ligament, and inserted on each side of the foramen immediately above and entirely separate from the insertions of the check ligaments. Its length was one inch, its width at the middle three sixteenths of an inch, and at the insertions one eighth of an inch. The appearance of the ligament differed from that of its neighbors in being white, shining, and tendinous, while they were of a dull pinkish color. The check ligaments (B) were smaller than usual, and although the band described was not attached to the odontoid process of the axis, as is usual with accessory check ligaments, its use seemed to be to prevent that process from being displaced backward upon the spinal cord, when the head was strongly flexed. During flexion or extension of the head, the vertical portion of the crucial ligament (C) played over the smooth surface of the ligament above



mentioned (A). Dr. Beach had been unable to find a description of the ligament in any anatomical work to which he had access, and he had examined some of the lower animals with reference to the structure, but without success.

Pott's Disease. — DR. TARBELL presented a specimen of carious vertebræ which he thought of interest, in connection with its history, as illustrating the course of Pott's disease in a thoroughly scrofulous patient. The specimen was obtained through the courtesy of Dr. Willis, of Waltham, in whose practice the case occurred.

The patient was a feeble-looking boy, two years old, with a history of tuberculous antecedents and always delicate health. Six months ago there was found a very slight prominence of the spinous process of one vertebra in the lower dorsal region; there was no knowledge of any antecedent injury. The patient had also the rational signs of serious trouble in the lungs, though physical examination revealed nothing important. Under tonic treatment the pulmonary symptoms subsided, but the spinal symptoms increased slowly, and it had just been decided to have apparatus applied for the support of the weakened vertebræ, when the child was seized with tubercular meningitis and died in about two weeks.

At the autopsy, a single cretaceous mass about the size of a filbert was found at the apex of the right lung, and was not surrounded by signs of recent inflammation. The pia mater was in several portions thickly studded with small white tubercular deposits, not so large as the head of a pin. The ventricles of the brain contained three or four ounces of fluid.

The spinal disease, of which the specimen was exhibited, proved to be an almost total destruction of the body of the first lumbar vertebra. The last dorsal vetebra was also seriously affected, and the intervening cartilage had wholly disappeared. There was a small abscess, containing perhaps a teaspoonful of thick pus, burrowing its way down the right psoas muscle. The ligaments remaining formed a hinge upon which the upper and lower portions of the body could move freely. There had been no paralysis of the legs, nor much pain, and it seemed quite wonderful that there could be so great a loss of bone with so little external deformity. Although the disease had existed eight months, and probably much longer, there was not the slightest sign of any attempt on the part of nature to repair the bone. This was the point of interest, and a practical one, as regards prognosis and treatment. In most specimens of Pott's disease of traumatic origin (and Dr. Tarbell expressed his belief that a large majority of all these cases could be traced directly to injury) the process of repair by anchylosis could be seen going on. About one year ago, Dr. Tarbell exhibited to the society a specimen where the patient had attributed his disease to a severe fall. The patient having died of an intercurrent pneumonia some years after the injury, the bodies of the vertebræ were seen to be held firmly by new bone thrown out along their sides, although the carious process had not yet wholly stopped.

Entire Removal of the Scalp by Machinery. — DR. WARREN reported the case and presented two photographs to the society, one showing the condition of the patient a few weeks after the injury, the second taken two years later. The patient, M. N., a girl sixteen years of age, was employed in a shoe-shop at

Stoneham, Mass. While watching a belt on the morning of September 6, 1872, her hair, which hung loosely about the shoulders, was caught in a rapidly revolving shaft, and the entire scalp, including the skin of the forehead, upper lids, and a portion of the right cheek, was torn instantly from the head. The scalp was replaced and stitched in position by Drs. Cowdrey and Brown, and shortly afterward she was removed to the Massachusetts General Hospital. There was little or no hæmorrhage at the time of the accident, and but little constitutional disturbance subsequently, considering the severity of the injury. During the first three weeks the scalp came away piecemeal, and revealed a healthy granulating surface extending from the middle of the bridge of the nose to a point one inch below the occipital protuberance, and from ear to ear. The accompanying figure gives an idea of the extent of the injury. The upper lids with cartilages and eyelashes remained, although deprived of skin, the right lid being torn away from the inner canthus and hanging by its outer border. A small portion of bone was exposed, but this was subsequently covered over by granulation, and no exfoliation took place. The eyes were uninjured, although the conjunctivæ suffered from the discharge of pus from the granulations above. There was considerable photophobia. Numerous attempts at grafting were made during her stay at the hospital; but these failing, owing to the free purulent discharge, she was removed to her home, where she came under the care of Dr. W. Symington Brown. From him, Dr. Warren obtained the subsequent history of the case. The wound was dressed at first with simple cerate, with the addition subsequently of a small amount of carbolic acid. Attempts at grafting were resumed by Dr. Brown in May, 1873, and were continued with success weekly, with the exception of a short interval, until November. The grafts were about the size of a turnip seed. At this time she had a pyæmic attack, and remained in a critical state for some days, during which time most of the grafts disappeared. On full recovery, however, strips of new skin made their appearance in the line of former grafting. "In January, 1874," Dr. Brown states, "we recommenced grafting, and have continued to apply from two to fifty grafts every Sunday since that date." The process of cicatrization had, on August 5, 1874, advanced the edge of the wound one and a half inches over the occipital bone, in front of the left ear two and three quarters inches, over the right cheek three and a quarter inches. On October 4th last, the surface remaining unhealed measured eleven and a half by seven and a half inches. On several points over this surface there are islets of sound skin and many grafts which have evidently taken. The grafts have nearly all been taken from young people and children. Figure 2 shows the amount healed over at this date. The patient, Dr. Brown says, has an excellent appetite; sleeps soundly; pulse and temperature normal. She rides out occasionally and does some light work, such as sewing and embroidery.

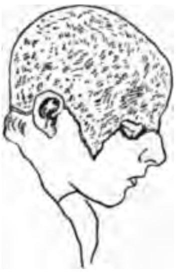


Fig. 1.

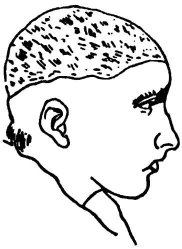


Fig. 2.

Dr. Jackson asked if, the external cuticle having been removed by a blister, scrapings from the true cutis were used by surgeons in skin-grafting.

Dr. Warren believed that scrapings from the skin had been dusted on granulating surfaces.

Dr. Cabot said that it had been done, and with success.

Dr. Porter said that the successful use of skin scrapings had given the first hint of the possibility of skin-grafting. He referred to the case of a girl who for two and a half years had had a granulating surface, resulting from a burn, covering the right buttock and extending down the posterior aspect of her thigh as far as the knee-joint, where in six months, by means of grafting, the surface had cicatrized with the exception of a spot a few inches in diameter.

Dr. Cabot spoke of a case in his service at the Massachusetts General Hospital that had been successfully treated by grafting by his house-officer, Mr. Bradford, and the patient had been discharged "well." Lately he had returned, with an ulceration in the cicatrix, grafting was again resorted to, and the ulcer healed.

Dr. Porter said that it was usually supposed that perfect quiet was necessary to the success of skin-grafting. But he had four years ago shown a man to the society with ulcer of the leg, which he had successfully treated by skin-grafting, at the same time allowing him to go to his daily work; and when last seen, two years or more afterward, the cicatrix had shown no signs of breaking down.

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PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

JAMES R. CHADWICK, M. D., SECRETARY.

At a special meeting of the Suffolk District Medical Society, called on February 9 to give expression to the universal sorrow caused by the death of Dr. Charles G. Putnam, the following resolutions, presented by a committee consisting of Drs. G. C. Shattuck, C. E. Buckingham, H. W. Williams, G. H. Lyman, and J. B. S. Jackson, were unanimously adopted.

Resolved, That the Fellows of this society have heard with regret of the death of their late associate, Dr. Charles G. Putnam, and whilst they sorrow that they may not again behold the light of his countenance, they will keep his example fresh in their minds as an incentive to duty and to the pursuit of whatever is good and honorable. At the ripe age of threescore years and ten, the summons to depart found him still at the post of duty, a loyal, active, faithful member of the profession which he had adopted and studied in his youth. Ever ready and willing to serve others, holding his talents and acquirements at the command of all who needed and applied for them, skillful, kind to his patients, courteous and just as a Fellow and President of the Massachusetts Medical Society, exemplary in all the relations of life, he has been taken to his rest and his reward.

Resolved, That this record of our appreciation of the merits and virtues of our late associate, and of the sense of the loss we have sustained, be communicated to the bereaved family with the assurance of our heartfelt sympathy and regard.

THE PRESIDENT, DR. MINOT, in explaining his reasons for calling the meeting, alluded feelingly to the respect and love entertained for Dr. Putnam by all classes in the community. As a former president of the Massachusetts Medical Society, it was fitting that special notice should be taken of his death by the largest medical society in the city.

DR. TYLER thought this loss was one we must all deeply mourn. Dr. Putnam's independent judgment, kindliness of heart, identification of himself with the interests of his patient, were traits entitling him to universal esteem and love.

DR. BUCKINGHAM pointed out that the large attendance at this meeting, notwithstanding the inclemency of the weather, indicated that this was no ordinary ceremonial. He had known Dr. Putnam for thirty years, and had ever admired his innate modesty and sense of justice. In consultation, he never sought to shirk the responsibility of carrying out the measures which the exigencies of the case seemed to require.

DR. WILLIAMS believed that few in our time had shown themselves so incapable of selfishness or envy. His careful observation, his trustworthy consideration, his devotion to professional work, have rarely been equaled. He was always ready to promote the welfare of a professional brother, ever commending, never blaming, a wise, thoughtful, genial, gentle man. All of us must be better for the example his life has been to us.

DR. READ considered that "De mortuis nil nisi bonum," a sentiment often observed from charity, to-day expressed truly the feelings of all present.

DR. REYNOLDS was unwilling that one other characteristic of Dr. Putnam should be overlooked, his dexterity as an operator in obstetrical cases; yet he never failed to encourage young men to operate in his presence in cases of consultation. His devotion to suffering women, even since the failure of his own health, was strikingly exemplified on one occasion during the past summer, when he could with difficulty be dissuaded from making a long excursion into the country to take charge of a difficult case.

DR. UPHAM cited as an instance of Dr. Putnam's fidelity to his patients an incident closely connected with his death. While seated upon the doorsteps, just after the attack which proved fatal, he told his son of a patient requiring immediate attention, and requested him to visit her. These words were his last. He was true unto death.

DR. HARLOW testified to the consummate skill displayed by Dr. Putnam in many consultations to which he had summoned him during the past twenty-five years.

THE STATE BOARD OF HEALTH AND NOXIOUS AND OFFENSIVE TRADES.

By an act of the legislature passed April 8, 1871, the State Board of Health received power to order any person, persons or corporations, who were engaged in carrying on the business of slaughtering cattle, sheep, or other animals, or of melting or rendering animal matters, or who were engaged in any other noxious or offensive trade, to cease and desist from the further carrying on of such trades or occupations, if in the judgment of the board the public health or comfort and convenience should require the abatement of such a nuisance. The only limitation which the legislature placed on the board was that their action should be limited to such cities or towns as contained more than four thousand inhabitants.

This act of the legislature met with approval of all with the exception of a few of those whose business might thereby be interfered with. One of the beneficent results of the measure may be witnessed in the daily workings of the Brighton Abattoir, where a business, formerly a nuisance to the whole neighborhood, is now carried on under such strict sanitary regulations as to be no longer a subject of complaint to the residents even in the immediate vicinity.

A few of the discontented ones, however, who felt more anxious for their own pecuniary welfare than for the sanitary welfare of their neighbors, made a great effort last year to induce the legislature to so restrict the workings of the Board of Health as practically to annul its power to regulate noxious and offensive trades. After a careful examination of the whole subject, the legislature decided to testify its unqualified approval of the past history of the board, and, instead of restricting its powers, as asked for by the petitioners, decided greatly to enlarge its sphere of usefulness by striking out the clause limiting the powers of the board to those cities and towns which had more than four thousand inhabitants.

Another effort is being made before the present legislature to induce it to pass an act by which parties whose business is deemed by the Board of Health noxious or offensive may have the right of appeal to a jury, the board acting as the prosecuting officer. It is earnestly to be hoped that the legislature will refuse to place any such check upon the powers of a board whose past history has always been such as to meet not only with the hearty approval of the inhabitants of the commonwealth but with high encomiums from those who residing at a distance, are perhaps the best judges of the efficiency of the existing laws and of the manner in which they have been executed.

A MOVEMENT AGAINST QUACKERY.

The Pennsylvania State Medical Society has appointed a committee to approach the legislature in regard to the subject of laws regulating the right to practice medicine. The committee has prepared a memorial which has been widely circulated throughout that State. The *Philadelphia Medical Times*, in calling attention to this movement, pertinently remarks, —

"It is simply astounding that whilst hedges and guards are placed by law around the inclosure within whose sacred bar are the members of the legal fraternity, any one, no matter how ignorant he, she, or it may be, can practice medicine in this State at will. . . .

"We are most strongly in favor of some legislation which shall check this unbridled license, for which, it may be thought, not the medical but the legislative profession is chiefly to blame. The medical profession, however, shares the responsibility. It is in a measure owing to its supineness in the past that murder stalks in the guise of philanthropy through every by-way of our commonwealth, and enters not rarely even the palaces of the rich. Let the committee bring this memorial and its subject before our legislators in such a way that they must pause from party wrangling to grant a serious hearing; and then, if no good results, our skirts will be clear."

Would that a similar movement could be inaugurated in our own State!

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SCARLET FEVER PRESERVES.

THE London *Practitioner* calls attention to the prevalence of scarlet fever at present existing in Great Britain. To such an extent has it increased that the title of "English Plague" has been justly applied to it. During the twenty-one years 1851–71 it killed on an average 18,400 persons yearly. It is found, as would be supposed, that the districts of excessive mortality were those containing the great urban populations. The whole of the districts of continuous excessive mortality during the twenty years 1851–70, regarded topographically, do not appear to exceed twenty-three in number. These districts contain an aggregate population of about 11,000,000 — that is to say half the population of England.

In these districts the infection is never absent; a continuous succession of it is maintained there from month to month and from year to year. During its epidemic developments it readily spreads beyond these limits and infects other districts, which in ordinary times are free from the disease. These districts may, then, be looked upon in the light of *preserves*. It is of the utmost importance, under these circumstances, that proper measures should be taken to suppress the disease in these centres. We are somewhat surprised to learn that little has hitherto been done in this direction, and that in London alone provision is being made for the isolation in hospitals of scarlet fever cases, and for the disinfection of infected premises.

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ASPIRATION IN PLEURISY.

THE question as to the use of the pneumatic aspirator in pleurisy has of late been discussed by Dr. Becker, of Munich. In cases where the operation is one of necessity for the preservation of life, there can, of course, be no question as to its propriety; but in most cases of pleurisy with sero-fibrinous effusion, Dr. Becker is decidedly opposed to aspiration of the fluid. Even where the pleural cavity is so full that the heart is much displaced, as long as the respiration and circulation are not disturbed he would leave the cure to nature. He contends that when the fluid has reached a certain amount effusion ceases, and the current setting in an opposite direction, towards the vessels, the cavity is gradually emptied, and contraction and adhesion occur in due order. Nature spontaneously limits the amount of effusion by compressing the root of the collapsed lung, and thus so far arresting the circulation in the vessels of supply. If the physician interferes with this normal course of affairs, and removes the fluid before the pressure in the pleural cavity has reached a certain height, he will simply restore the circulation in the pulmonary vessels, reëstablish the conditions of effusion, bring the rough surfaces of the pleura into frictional contact, and have robbed the system of so much precious fluid.

Dr. Becker considers the circumstances even more serious when the collapsed lung is adherent. Should aspiration then be performed the fluid speedily refuses to flow, the tube collapses, and air forces its way around the needle into the chest. Worse still, the lung expanding unequally may undergo alveolar dilation; it becomes hyperæmic, hæmoptysis may occur at once, and bronchitis and pneumonia supervene. Less serious reasons for letting nature alone in sero-fibrinous pleurisy without urgent symptoms are the facts that the risk of sudden death from fatty heart, which is present in such cases, is not removed by operation; that marasmus is not relieved by it; and that fresh pleurisy often comes on, and the chances of empyæma increase with every tapping.

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MEDICAL NOTES.

—The regular meeting of the Obstetrical Society of Boston, which was to have occurred last Saturday evening, was omitted out of respect for the memory of the late Dr. Charles G. Putnam; the society was to have met at his house.

—In cases of dropsy of the joints, especially that of the knee, Dr. Bergeret finds the continued application of bags of hot sand to answer better than any other kind of treatment. When the acute stage is passed, and whatever may be the cause of the dropsy, he wraps the joint in a thick layer of cotton-wool, and applies to this a sack containing two or three litres of fine and very hot sand. The dropsy disappears in a few days. The sand must be very hot, and the heat may be kept up by means of covering with a blanket. The sand must not be too thick in the bag, so that it may extend easily on the knee, and overhang the hydrarthrosis in every direction.

—Dr. Paul F. Munde, in a letter to the *New York Medical Record*, calls attention to Hoenig's method of removing the ovum in cases of abortion. Hoenig recommends to express the ovum, either entire or in part, if the fœtus be already removed, by means of bi-manual compression, two fingers of one hand being introduced into the vagina, and passed as far up as possible into the fornix vaginæ, the other hand grasping the uterus through the abdominal parietes, thus firmly compressing the organ between the fingers of both hands, and slowly and surely expelling its contents. If the uterus is anteverted or anteflexed, as usual during the earlier months of pregnancy, the two fingers should be passed into the anterior cul-de-sac, or the corpus uteri may be firmly pressed against the symphysis pubis by the external hand alone (the bladder having been emptied). If the uterus is retroflexed, the two internal fingers go behind the cervix. Of course, it is essential that the cervix be sufficiently dilated before this method is attempted.

— Dr. Samuel W. Francis, Fellow of the New York Academy of Medicine has recently published pamphlet No. 3 of his medical series. It contains short articles on the term "syphiline" to indicate the syphilitic poison, on a glass glove or boot for the treatment of sprains or burns, on "Self-Opening Coffins and an Alarm Telegraph," etc. The longest paper is entitled Man and Nature; from it we abstract this paragraph: "It is my firm conviction that the mosquito was created for the purpose of driving man from malarial districts; for I do not believe that in nature any region where chill and fever prevail can be free from this little animal. Now if man will not go after warning is given in humming accents, then the mosquito injects hypodermically a little liquid which answers two purposes: firstly, to render the blood thin enough to be drawn up through its tube; and secondly, in order to inject that which possesses the principles of *quinine!*"

— A correspondent writes to us as follows: "Why is it that medical schools are so far behind the times? Why are medical degrees given away so freely? The value of a thing is generally estimated by the time and labor required to obtain it; if this be the case, an M. D. is not worth as much and is not so respectable as a horse-doctor's degree (D. V. S.). To obtain th former, one has to spend a year at a medical school and make the facult believe that he has opened a medical book once in a while during the las three years; to get the latter, one has to study six years at a good schoo Still we think ourselves better than horse-doctors. The medical schools thin too much of patronage. It seems as if their object is rather to make mone than to increase the value of the degree. A degree of M. D. should be mad as honorable as that of Ph. D. or of Sc. D. Why should not students obliged to pass a preliminary examination? Harvard should lead off improvements. The school that does lead off will eventually receive the mo patronage."

— An ice-inspector has been appointed in London, whose duty is to exami and certify to the safety of the ice in the public parks.

— The physicians of eastern Middlesex, in this State, have done a very commendable thing in formally urging upon the town authorities, the local board of health, and the school committees of their section, the necessity of makin and enforcing "such rules as will prevent the attendance in the public schoo of any child residing in a family where there is, or has been, a case of measle scarlet fever, or whooping-cough, until the physician in attendance on suc case of disease shall have furnished a certificate that in his opinion the perio of danger from infection is past, and that he knows that the infected premises have been thoroughly disinfected."

—The Edinburgh correspondent of the *British Medical Journal* states that the new university buildings are to cost one hundred and fifty thousand pounds. He also states that some time ago Dr. Bell's trustees offered to the University of Edinburgh the sum of six thousand pounds towards the endowment of a chair of the theory and practice of education. Subsequently a joint memorial was presented to government by the trustees and the senatus, praying for a grant of the rest of the money necessary to its adequate endowment. A communication has been received this week intimating that the government are willing to accede to this request. The sum the government intend giving is five thousand pounds, which will bring up the endowment of the chair to eleven thousand pounds, equal to an annual stipend of four hundred and forty pounds. This is a far higher endowment than goes with most of the chairs in the university, particularly those of the medical faculty. The appointment of a professor will be made forthwith, so that he may begin his course next session.

—Mackay's omphalic mustard plasters or leaflets consist of disks about the size of a sixpence, attached to small sheets of a light and transparent material. These are four and a half inches by three and a half, and have each twenty spots. They are merely to be dipped in water and applied. By leaving them on for a longer or shorter time, any required amount of effect may be attained, from a glow of redness to actual blistering. The spot principle, too, seems quite in accordance with nature's own efforts to relieve internal congestion and inflammation, as in the various rashes which from time to time appear on the body. It is well known that the appearance of such is attended with much relief from suffering. The same principle has been applied to fly-blisters. The spots are of three sizes, but those most recommended are small, — four tenths of an inch, — and eighty-five of them on a sheet six inches square. They occasion a crop of vesicles, which appear in regular order, having intervals of unblistered skin between. What renders common blisters so painful is the denudation of a large continuous surface of the sensitive skin. The spot plan entirely does away with this, leaving as it does sound intervals between the vesicles, and making it an easy matter to heal them up when this is wished for. By removing the cuticle and applying a drawing ointment, the counter-irritant effect is kept up, and may be intensified as much as is deemed desirable.

—According to the *London Medical Record* the number of medical men in France seems to remain stationary. In 1847 there were 10,643 practitioners, or one to every 3244 inhabitants. In 1866 there were, taking in the annexed departments, 11,525, still, by a singular coincidence, averaging one to the same number of inhabitants above cited. In 1872 when Alsace and Lorraine were lost to France, there were only 10,766 doctors, or one to each 3353 inhabitants. This dearth of medical assistance is attracting considerable attention in France, and is likely before long, according to the *Revue Scientifique*, to become the subject of legislative interference. The unequal distribution of the available number of medical practitioners renders the situation all the more serious; for instance, in the department of the Seine there is a doctor to ever 1115 inhabitants, whilst in the department of the Morbihan there is only on to each 10,576 of the population; a scarcity of medical aid which is surpasse in the case of one department which rejoices in the medical care of one practitioner only for 11,000 people.

SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

OPERATIONS were performed under ether in the following cases during th week ending January 30:—

1. Hydrocele. 2. Necrosis of tibia. 3. Tumor of arm. 4. Stricture o urethra. 5. Enlarged tonsils. 6. Phimosis. 7. Ingrowing toe-nail, 8 Crushed hand; amputation of fingers. 9. Necrosis of phalanges; amputation of fingers. 10. Cancer of lip. 11. Ranula. 12. Foreign body in throa (pin); extracted. 13. Abscess; six cases. 14. Felon.

4. *Stricture of Urethra.*— Of traumatic origin and ten years' duration, in man twenty-five years old. He had suffered from repeated attacks of retention, which had been relieved by the catheter. The stricture admitted a capillary bougie; with this as a guide, Dr. Bigelow passed the divulsor of Voillemier and ruptured the contracted urethra. A No. 12 elastic catheter wa then passed into the bladder and left. Dr. Bigelow remarked that he believe it better, in this and other operations exposing the tissues to urine, to protec the raw surface for a few days from the urine, by leaving an elastic cathete in the bladder until the denuded tissues are consolidated and protected by inflammatory product. He was unable to see any objection to this expedient which has obvious advantages. One thing, however, was important: attendant instinctively plug the catheter to regulate the flow of urine; the latter wa then forced by the side of the catheter against the lacerated tissues, so th the presence of the instrument is a serious detriment. The surgeon shou remember to attach to its orifice an unobstructed elastic tube leading to vessel upon the floor. The instrument should also be of full size.

6. *Phimosis.*— The patient was a negro. Dr. Bigelow remarked that t double disk of skin and mucous membrane should be excised not transvers but obliquely, parallel to the corona glandis. The mucous layer, when turn back, would then lie so exactly in apposition with the skin that stitches mig seem superfluous. But the œdema which soon ensues makes them necessa to keep the parts together; or, better than stitches, serres fines, which c be removed painlessly on the second day. One point he believed was ne to avoid the tenderness about the frænum, which is the sorest part of t wound, he had been in the habit of leaving this part of the prepuce, unless very exuberant, untouched. The œdema disappears in a month or tw

operation then consists in removing from the dorsal aspect of the gland val disk, and with it about three quarters only of the preputial orifice.

H. H. A. Beach, M. D., Surgeon to Out-Patients.

* * *

RGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DR. CHEEVER.]

HE following operations were performed during the week ending Friday, ruary 5, 1875:—

. Carbuncle. 2. Deep abscess of the neck. 3. Amputation of finger. Amputation of toes for frost-bite. 5. Plugging the posterior nares.

Carbuncle. — The patient was fifty-five years old, and had had the car- le three months. He was very much prostrated when admitted to the ital. He could take food but poorly, and he lay in a sort of semi-con- s state.

he carbuncle began over the upper part of the right scapula, and had nded down the back to the right axilla, and across to the left side of the e, so that it measured fifteen inches in its shortest diameter. The tissues sloughing in the centre, and boggy and œdematous about the margins. Cheever scored the central portions of the carbuncle subcutaneously with rved bistoury, giving exit to considerable pus and sloughy tissue. Hæmor- e was prevented by a firm bandage over a compress of sponges. The nt sank, and died from exhaustion in about twelve hours.

his was a remarkable example of a neglected carbuncle, showing that re was unable to prevent or repair so much mischief without assistance. h proper treatment at the commencement of the affection, his chances for overy would certainly have been very much better.

Epistaxis; Plugging of the Nares; Death. — This case is mentioned on unt of its complications and fatality.

young man was brought to the hospital in a very feeble, anæmic state. ad had nose-bleed for three days. A slight attack, soon after his admis- resulted in syncope.

r. Cheever plugged the posterior and anterior nares on both sides. Hæmor- e ceased, but blood was soon found to be trickling from the right ear. e had been no previous injury. The sponges were left in sixty hours. g which time there was no nose-bleed. The ear, however, bled occa- lly. The patient was well nourished, moderately stimulated, and given nctura ferri muriatis in full doses. On removing the sponges, both nares freely; when this was checked by styptics, the ear bled again. The ving evening the patient rose up in bed, ejected from his mouth or throat ge quantity of blood, fell back, and died. There was no autopsy. No y of a previous disease was given; there was no purpuric eruption. The must be set down as one of "hæmorrhagic diathesis."

Geo. W. Gay, M. D.

ON THE PITTING FROM SMALL-POX.

MESSRS. EDITORS, — Although the mortality from variola has been reduced by vaccination to a percentage which closely corresponds to some of the other less dreaded and less vicious acute fevers, there yet remains an indication in its treatment which has defied the sagacity and ingenuity of the physicians of all times, and concerning which the opinions of to-day are apparently as unsettled as they were five hundred years before Christ. Having heard so many physicians at home express their confidence in the efficacy of certain prophylactic measures against pitting, although all measures may appear futile in many cases, I was desirous to learn the experience and views of Professor Hebra, of Vienna, in regard to this subject.

In his work upon skin diseases, which is at present in process of publication, Professor Hebra enumerates several of the many emplastra, unguenta, etc., which have been recommended for the object in discussion, and which he himself has thoroughly tested. He then declares that cicatricial formations are in no degree and in no case prevented by such applications. An eruption of small-pox is an association of small, suppurating centres (abscesses) which are situated in the skin. The amount of damage which they will do to the skin, and the amount of deformity which will thereby result, depend wholly and solely upon the depth in the skin at which each given efflorescence is situated. A pustule situated in the Malpighian layer will leave no record of its existence, however much it be neglected, while the same pustule deeper seated, and involving the papillary layer, or corium proper, will leave a scar in spite of every effort to prevent it. The apparent efficacy of the many medications which have been so highly extolled is explained by Professor Hebra by deductions from his study of the natural history of small-pox eruptions, — assuming that only those pustules can pit which involve the papillary or lower layers of the skin. He further declares that from every one hundred individuals, who have had variola vera, scarcely fifty bear scars. In other words, fifty per cent. of small-pox eruptions, even when allowed to run their natural course unaided by any medication, heal without pitting. The fact that the trunk, arms, and legs are more exempt from pitting than the face is not attributed by Professor Hebra to the exemption of the former from the influence of light, in that they are constantly covered with clothing, while the face is as constantly exposed; but he explains the fact on the following grounds: —

First, there are, as a rule, more pustules upon the face than upon any other portion of the body having the same area as the face. Not every pustule leaves a mark, but a certain proportion of them are likely to do so. That portion of the body, consequently, which has on a given area the largest number of pustules will probably, *cæteris paribus*, bear the largest number of scars.

Secondly, two abscesses which are situated in immediate proximity to each other mutually intensify each other's virulence, and thereby generate an inflammation which is more active and more extended in its influence than would be the case if the abscesses were widely separated from each other. A small-pox eruption is a collection of small abscesses which, being more numerous on the face, are necessarily more closely associated, and hence incite each other to [illegible] greater devastation than on the body, where, as a rule, they are not so closely packed.

Thirdly, the sebaceous follicles upon the face, and particularly upon the nose and adjacent portions of the cheeks, are larger and more numerous, and the interfollicular partitions are consequently thinner than on the body. These narrow, interfollicular partitions of the face are less able to resist the destructive aggressiveness of a pustule than the broad, roomy partitions elsewhere; and hence the more superficial layers of the former partitions are much more likely to be destroyed than the corresponding parts in the latter. But destruction of these partitions during the efflorescent stage of variola means cicatrization and disfigurement in recovery.

Thus we have three factors favoring greater disfigurement of the face than of the body: the plurality of eruptions upon a given area; the greater intensity of the same; and the structural inferiority of the skin of the face as regards its ability to resist the encroachments of the pustule.

Although Professor Hebra so emphatically disclaims any belief in the efficacy of external applications against pitting, he nevertheless employs them in his practice at the present time; but he employs them solely with a view either to facilitate the early evacuation of the pustule, and thereby anticipate purulent resorption and pyæmic consequences, or to ameliorate the subjective symptoms of discomfort which a patient experiences during an eruption of small-pox. He considers that the secondary fever of small-pox, which usually begins on the seventh and reaches its height on the eleventh day of the sickness, is caused by a resorption of the decomposing contents of the pustules, and hence he terms it a pyæmic fever. To prevent this casualty, he recommends the early evacuation of the pustules. But direct opening of the pustules by puncture or caustic is painful and dangerous to the patient, and is inapplicable to confluent forms of the disease. Having observed that the efflorescences upon mucous membranes never attain the same development and purulency as those on the skin, he attributes it to the fact that the mucous membranes are constantly macerated by their own secretions, and that thereby the pustules become more readily emptied of their contents. Acting upon this hint, he accordingly applies simple macerating agents, such as wet cloths, ointments, etc., to the surface of the body.

Although, as he confesses, his efforts in this direction have not accomplished all that he desired, he has nevertheless learned that the subjective condition of the patient may be greatly improved, even by so simple an application as cloths wet in water. The presence of the numerous pustules in the thick skin, especially on the palms of the hands and the soles of the feet, is a source of great irritation to the patient, but this irritation can be greatly diminished by constant maceration of the skin.

External dressings, therefore, ameliorate the discomforts of an eruption, but do not, according to Professor Hebra, in any way essentially modify its results, and no particular matter or manner of dressing can claim any efficiency against pitting until it can show statistically, and for a large number of cases, that its application reduces the per cent. of pitting below fifty, which is the highest per cent. attained by the disease itself, when left to its own course.

Yours very truly, G. M. GARLAND.

VIENNA, *January* 4, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending February 13, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: influenza, bronchitis, pneumonia, and rheumatism. An unusual number of typhoid cases are reported.

In the Connecticut Valley: bronchitis, influenza, pneumonia, and rheumatism.

In Worcester County: bronchitis, influenza, pneumonia, measles, rheumatism, and scarlatina. Measles and scarlatina show a decided increase in prevalence. Small-pox is reported on the increase in the Blackstone Valley, and it appears to be extending northward.

In the Northeastern section (Middlesex and Essex): influenza, bronchitis, pneumonia, scarlatina, and rheumatism. Measles and whooping-cough have subsided. A case of cerebro-spinal meningitis in Lynn is reported.

In the Metropolitan section: bronchitis, influenza, measles, pneumonia, rheumatism, and scarlatina. Except scarlatina, all these diseases show a tendency to diminished prevalence.

In the Southeastern counties: bronchitis, influenza, pneumonia, rheumatism, and whooping-cough.

In Dukes and Nantucket: bronchitis and influenza.

The order of relative prevalence of the foregoing diseases in the State at large is as follows: influenza, bronchitis, pneumonia, rheumatism, scarlatina, measles, whooping-cough. It will be observed that diseases of the respiratory organs maintain their place at the head of the list, coincidently with the prolonged cold.

If we compare the present with last week, we find scarlatina has increased in prevalence, while all the other diseases have subsided somewhat or remain as in the last report.

Scarlatina is most prevalent in Middlesex and Essex; measles, in Boston and its suburbs; diphtheria, in the Connecticut Valley; whooping-cough, on the Cape. F. W. DRAPER, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING FEBRUARY 6, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	600	30
Philadelphia	775,000	333	22
Boston	350,000	173	26
Providence	100,000	38	20
Worcester	50,000	19	20
Lowell	50,000	21	22
Cambridge	44,000	33	39
Fall River	34,200	16	24
Lawrence	33,000	18	28
Springfield	33,000	9	14
Lynn	28,000	12	22
Salem	26,000	10	20

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AN INQUIRY INTO THE CAUSES OF THE INCREASED DEATH-RATE OF BOSTON AND ITS SUBURBS IN 1872 AND 1873.[1]

BY M. B. LEONARD, M. D., OF EAST BOSTON.

THE ratio of mortality in East Boston for the year 1871 was 15.6 per 1000 inhabitants. For the year 1872 it was 28.6 per 1000, an increase of 13. If the deaths from small-pox in the latter year be deducted, the deaths from other diseases give a ratio of 27.61. This remarkable increase in the death-rate, in the absence of any epidemic to account for it, led the writer to go over the record of mortality as far back as reliable statistics were accessible, to ascertain whether such marked variations had occurred in our previous history. The following table will give the result of this investigation, showing the population of East Boston, with the semi-decennial rate per cent. of increase, and the number of deaths and ratio per 1000 inhabitants for each year from January 1, 1850, to January 1, 1875.

TABLE I.

Population and Death-Rate of East Boston.

	Population.	Average Annual Increase per cent.	Number of Deaths.	Ratio per 1,000.	Annual Average for Five Years.		Population.	Average Annual Increase per cent.	Number of Deaths.	Ratio per 1,000.	Annual Average for Five Years.	Deaths from Typhoid Fever.
1850	9,851		224	22.7		1863			413	20.5		
1851			281	25.3		1864		1.25	452	22.2	20.13	
1852			276	22.4		1865	20,568		447	21.7		
1853			338	25.		1866			382	17 2		
1854		12.4	362	24.3	23.94	1867			445	19.7		14
1855	15,963		376	23 5		1868			508	21 1		17
1856			375	22.5		1869		4.78	472	19 3	19.8	19
1857			328	18.9		1870	25,484		513	20.1		24
1858			332	18.4		1871			414	15.6		19
1859		4.24	317	16.9	20.04	1872			790[3]	28.6		24
1860[1]	19,356					1873			610[4]	21.3		81
1861[2]						1874		4	537	18.1	20.74	
1862			352	17.7								

[1] Registrar made no report.
[2] Registrar made no report.
[3] Small-Pox, 25.
[4] Small-Pox, 16.

The above table shows the following facts: —

First, that between the years 1850 and 1870 the greatest difference in the death-rate of any two consecutive years was between 1865 and 1866, when it was 4.5.

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[1] Read before the Suffolk District Medical Society, January 30, 1875.

Second, that the highest ratio, 25.3, was in 1851, and the lowest, 16.9, was in 1859; the difference is 8.4.

Third, that the highest average for five years was from 1850 to 1855; and the lowest from 1865 to 1870.

Fourth, that the average mortality was greater during the war than in the five years preceding and following it.

Fifth, that since 1870 some unusual cause has exerted a marked influence upon the health of the citizens of East Boston.

It will be observed that in 1870 the death-rate did not differ materially from the average of preceding years. The following year it fell 4.5, and in 1872 it rose 13, — the former being lower and the latter higher than in any preceding year. In 1873 it fell 7.3 and in 1874 3.2. In 1850 the city had but fairly commenced the construction of sewers in East Boston, and it was several years before our drainage system was sufficiently perfected to give most of our dwellings good drainage, and to remove nuisances from the vicinity of many of them. The large mortality before 1856 was probably due to this want of sewerage. Concerning the period from 1856 to 1870 there seems to be nothing worthy of special remark, except this: that the theory which claims that, since a large percentage of the mortality of Boston is of children, the death-rate during the war would be less, there being fewer marriages and fewer births, seems not to be verified in East Boston.

Our citizens received their water supply from 1851 to 1870 from Lake Cochituate. The great fluctuation in the death-rate since 1870 cannot be attributed to bad drainage or local nuisances or epidemics, as there has been no material change in our drainage, or in the number of nuisances abated, and no diseases have prevailed in an epidemic form. There seems, however, to have been an increase of most if not all the ordinary diseases during those years when the ratio has been large. The quality of the water supply has been variable, and the death-rate seems to have risen as the impurities in the water increased, and to have fallen as they decreased. In 1870 the quality of the water was neither very good nor very bad; in 1871 it was good most of the season; in 1872 it was at times offensive to sight, taste, and smell; the following year it was considerably better, and last year it was still further improved. The question arises, What should occasion these variations in the quality of the water supply? Since January 1, 1870, our supply has been from Mystic Lake; and those who are conversant with these waters are aware that between twenty and thirty large tanneries, two glue factories, and one chemical manufactory, besides several other mechanical establishments, discharge their refuse into the lake or its tributaries. In addition to these, the waters receive the sewage of many houses. The greater part, however, of this refuse and sewage is discharged into brooks, which in dry seasons like the summer of 1871 and of 1874 do not flow; most of this very objectionable matter is then withheld from the lake, and the water supply is greatly improved. On the return of heavy rains the large accumulations of noxious materials are washed into the lake, and the result is shown in the above table. The effect of the drought of 1871 was such as to lead to the destruction of a large number of fish that ventured near the head of the lake.

These facts, which point so significantly to the water supply as the cause of our variable death-rate, made the examination of the death-rate of other cities receiving their supply from the same source a subject of much interest. The result will be found in the following table.

TABLE II.

Number of Deaths and Ratio per 1000 since 1870.

	1870.		1871.		1872		1873.		Average Ratio.
	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	
Charlestown	766	27.5	630	21.9	767	26.8	833	28.2	25.9
Somerville	259	17.6	342	21.1	400	22.5	425	21.1	20.5
Chelsea	332	17.9	345	17.7	416	20.3	455	21.3	19.3
Total	1357	22.01	1317	20.5	1583	23.8	1713	24.8	22.77
East Boston	518	20.1	414	15.6	790	28.6	610	21.8	21.4
Small-Pox					25	1	16		
With Small-Pox deducted					765	27.6	594	20.7	
Boston, Wards II. to XVI	5585	24.8	5474	23.9	7300	31.49	7259	30.8	27.74
Small-Pox					713	3.08	286	1.2	
With Small-Pox deducted					6587	28.41	6973	29.6	26.67

Note. The high death-rate in Charlestown indicates that there are causes influencing the health of the citizens that do not exist in other cities supplied by Mystic water.

For convenience in comparing I have included East Boston, and Wards II. to XVI. (inclusive) of Boston (being the whole territory receiving its supply from Lake Cochituate prior to 1874), in the same table. An examination of this table will show that the death-rate of Charlestown in 1870 was 7.4 more than that of East Boston; in 1871 it was 6.3 more; in 1872 it was 4.8 less; in 1873 it was 6.9 more: average for the four years 4.5 in favor of East Boston.

The aggregate ratio of the three cities included in the first part of the table was, in 1870, 1.91 more than that of East Boston; in 1871, 4.9 more; in 1872, 4.8 less; in 1873, 3.5 more: average for the four years 1.37 in favor of East Boston.

If the great variations in the death-rate in East Boston were occasioned by variations in the quality of the water, the question arises, Why were not the variations, although large in those cities, as large as they were in East Boston? Those cities use cement pipes, claimed that no crusts form in them, and that by use the smooth, like glass; consequently, it is easy to remove the d them by flushing. The water-works of those cities, further under the supervision of the Mystic Water Board. The been informed that in the spring and fall of 1872 the pipes cities were flushed, as is their custom every year.

The street pipes in East Boston, on the other hand, are of many of them have been in service for more than twenty are much roughened by tubercles and incrustations, which w it difficult, if not impossible, to free them from deposits. Th are under the charge of the Cochituate Water Board, and for son they were not flushed in 1870, although the attention of was called repeatedly to the condition of the water.

As East Boston is at the end of the system, the strong cur passes through Somerville, Charlestown, and Chelsea to reach naturally bring with it a large percentage of the deposit, ca pipes to become so filled that at times we could not draw wat its containing considerable sediment of an offensive smell and the spring of 1873 a large delegation had a formal hearing b Cochituate Water Board, to urge the adoption of immediate to improve the quality of our water. This led to the flushi pipes, and a consequent improvement in the water; our deat that year 7.3. The drought in 1874 has resulted in the wi of a large portion of the very objectionable matter entering supply in Woburn and Winchester. This, together with t care given the street pipes, has reduced our death-rate 3.2 m ing it 18.1.

A table giving the number of deaths from each of the di each year, and extending back five or ten years, would be b esting and instructive, but its preparation from the record as would require more time than the writer could give, and h obliged to satisfy himself with the date of each death from fever, the age of the decedent, and the street and number death occurred, from 1867 to 1873 inclusive. It will be obse the number has increased out of proportion to the increase of lation, since the introduction of Mystic water, and that in number was seven more than in any preceding year, notwit the large decrease in the general death-rate. The point of m est in this inquiry is, however, the fact that the deaths were n as to locality, but were quite evenly distributed over the islan years there were more upon the highlands, where the draina parently good; in others, the excess was upon the flats. Th important, inasmuch as it indicates that our variable death-ra due to local causes, but to some general cause which affects every part of the ward. There were many deaths from diseases of the bowels in 1872, but not a sufficiently large number to account for the great increase in the mortality that year. Such a table as has been referred to above would be valuable, as it might indicate whether the mortality from other diseases than typhoid fever and diseases of the bowels might be influenced by impure water. The medical commission in their recent report[1] say, "It will be seen that, though the total number of deaths in the city was 37.4 per cent. greater in 1872 than in 1871, yet the percentage increase of those diseases which *may* be produced by impure water was less than that of diseases supposed not to be so produced. In other words, though the death-rate in the city was remarkably high in 1872, this great mortality cannot justly be attributed to any unusual impurity of the drinking-water."

Does any one doubt that the use of food, or the breathing of air, contaminated with decomposing organic matter, would increase the mortality from many, if not most diseases? Would our ambitious young physicians seek for dispensary practice if they did not suppose that the bad food and bad air of their patients would give an excellent opportunity to study a great variety of diseases in their worst forms?

If the food and air to which many of the poor in our large towns are doomed bring upon them a variety of diseases in an aggravated form, why should not drinking water containing the same kind of impurities have a similar influence? It is well known that the only effective remedy for many of the sick poor is a change of food and air. Within the past two and a half years the writer has found that the only effectual remedy for some patients, who were not poor, was a change of water. A few are so sensitive to it that one glass of Mystic water is sufficient to bring on an attack of diarrhœa, and consequently they are obliged to have their water boiled before drinking it. Many others find the same expedient effectual in relieving impaired digestion, and in removing some of the urinary deposits which had resisted medication.

Water rendered impure by the discharges or the secretions of those suffering with typhoid fever, or cholera, or other of the zymotic diseases, is likely to cause an epidemic of these diseases among those who drink the water. What influence water has when it contains the discharges and secretions of consumptive patients, and of those suffering from many other diseases, is not now definitely known. Neither is it determined concerning the diseases which decomposing animal and vegetable matter in a water supply will induce.

The following table gives the excess of deaths for each month in the year 1872 over the corresponding months of the previous year, and shows conclusively that the death-rate of Boston also varies with the quality of the water supply.

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[1] City Document 102, 1874, page 46.

TABLE III.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.
1872	550	491	656	572	623	582	990	814	707	638	679
1871	485	458	468	433	471	395	732	610	500	441	419
Excess in 1872	65	33	188	139	152	187	258	204	207	197	260

In the last report of the State Board of Health,[1] Professor Nic says that "the water as received in Boston during the years 1872 1873 has been more strongly colored, and otherwise less pure, thar the two preceding years" (which was as far back as his observati extended). Farther on he says, "That the introduction of the Sudb River has contributed somewhat largely" (*i. e.*, to the increas organic matter in the water supply), "there can be no doubt."

Sudbury River was turned into Cochituate Lake June 28, 1872, ar will be observed that the mortality was considerably greater than tha the previous year, and of the previous part of that year for the bala of the year. The small-pox epidemic was raging in November December, and probably accounts in part for the large excess in tl months. The committee appointed by the Board of Health to re the causes of the large mortality in Boston for the last two years probably be able to show us whether the increased impurity of water was a cause or only a coincidence. The facts I have b able to obtain indicate that it is one if not the sole cause for the la increase of the death-rate. These facts show that there should be delay in the construction of sewers to divert the very objectionable n ter from our water supplies.

The small death-rate in East Boston in 1871 (15.6) and in 1 (18.1), when only a portion of the sewage and refuse of the twenty thirty tanneries was withheld from the lake, proves the natural wa of the lake to be excellent; and we may confidently predict a g record every year, should this objectionable material be permane diverted. If this were done, and sufficient storage were added, Mystic waters would prove a valuable acquisition to the water suppl Boston. The aggregate area of the Cochituate and Mystic water-sh is forty-six square miles, and in seasons of ordinary rain-fall would y forty-six millions of gallons daily; at an estimated cost of two hund and ten thousand dollars, Stevens's Brook, with an area of about 1 square miles, together with a large storage basin, can be added to Cochituate, and secure a supply of seventeen millions of gallons d from that source. And by the construction of proper storage basins the Mystic basin that source will supply about twenty millions of gal in dry seasons.

The aggregate population of the towns that now receive, or herea may look to those sources for a water supply, was in 1870 340,885 will be seen by Table IV. Tables V. and VI. give the actual growth and rate per cent. of increase of the towns and wards in both the Mystic and the Cochituate districts from 1865 to 1870. There is good reason to doubt whether either of the districts has grown more rapidly since 1870 than for the five years previous. So far as relates to the Mystic,

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[1] Page 122.

TABLE IV.

		1870.	Annual Increase per cent.	1875.	Assumed annual increase between 1875 and 1880.
Aggregate of Mystic District .		102,193	4	122,531	4,901
Wards II. to XVI inclusive, Cochituate District	225,042		1.5	241,907	3,628
Ward XVII., Cochituate District	8,683		5	10,853	542
Ward XIX., Cochituate District	4,967		5	6,208	310
Aggregate of Cochituate District		238,692			
Sum total of the two districts .		340,885	2.38	381,512	9,381

TABLE V.

	Population, 1865.	Population, 1870.	Increase, five years.	Increase, one year.	Annual Increase per cent.	Annual increase per cent. assumed since 1870.
Charlestown . .	26,399	28,323	1,924	384.8	1.45	1.41
Somerville . . .	9,353	14,685	5,332	1066.4	11.4	10
Chelsea	14.403	18,547	4,144	828.8	5.75	5
East Boston . .	20,568	25,484	4,916	983.2	4.78	4
	70,723	87,039	16,316	3263.2	4.61	4

TABLE VI.

Boston.	Population, 1865.	Population, 1870.	Increase, five years.	Increase, one year.	Increase per cent.	Increase per cent. assumed since 1870.
Wards II. to XVI. inclusive	210,893	225,042	14,149	2,829.8	1.34	1.5
Ward XVII. . . .	6,912	8,683	1,771	354.2	5.12	5
Ward XIX.	3,854	4,967	1,113	222.6	5.77	5
	221,659	238,692	17,033	3,406.6	1.53	1.7

the indications are that it has grown less rapidly, and I have assumed it to be less, 4 per cent., the same rate assumed by the engineers. For the five years prior to 1870, the growth of Wards II. to XVI. inclusive was only 1.34 per cent. annually. Including Wards XVII. and XIX. it was 1.53 per cent. So much has been said of the growth of these wards that I have assumed it to be since 1870, for Wards II. to XVI. inclusive, 1.5 per cent., and for Wards II. to XIX. inclusive 1.7 per cent. The engineers estimate the growth at 3 per cent. They do not, however, explain why the laws which have governed the growth of Boston and its suburbs are to be so modified since 1870. They seem to quite overlook the fact that so long as Boston is a commercial city, so long Boston harbor will be the centre of its business, and its growth will be around the harbor. The population of the whole territory now belonging to Boston was in 1865 268,626; and in 1870 292,499; the annual percentage of increase for that period was therefore 1.77. It is probable that the population of Boston, including all the annexed territory, does not exceed 320,000. Probably it does not reach that number.

These figures show that unless the growth has been considerably more rapid since 1870 than it was for the five years previous, twenty-four millions of gallons will give each inhabitant more than sixty gallons daily; and that the estimated increase of population in both districts (9181) would require an annual additional supply of less than three fourths of a million gallons daily. The above facts and figures have led the writer to the following conclusions: —

First, that the present sources, if fully developed, will give Boston and the towns dependent upon them an ample supply of water for ten or fifteen years to come.

Second, that the impurities in our water supplies have increased the death-rate of Boston in the years 1872 and 1873. It is this conviction that led the writer, while chairman of the committee above referred to, to urge upon those having the water supply under their charge to purify and develop their present sources before expending large sums to obtain an additional supply from another source.

To make Boston a large and prosperous city, it must be made a healthy city; to make it healthy, the causes of disease must be found and removed; to find the causes, we must be guided to our conclusions by facts, and not by theories, or opinions, or the wishes of interested parties; and to obtain facts, the city should be divided into permanent health districts, and accurate statistics of population and mortality should be tabulated every five years, when the taking of the census would make it possible to form accurate conclusions.

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AN UNUSUAL CASE OF HERPES ZOSTER OPHTHALMICUS.

BY O. F. WADSWORTH, M. D.,

Ophthalmic Surgeon at the Boston City Hospital, and to Out Patients at the Massachusetts General Hospital.

IT has been laid down as a clinical rule, and never to my knowledge contradicted,[1] that when the whole side of the nose is involved in herpes zoster the eye does not escape. The explanation is found in the fact that the same nerve (naso-ciliary) which supplies the skin of the lower part of the nose and the nasal mucous membrane supplies also the long root of the ciliary ganglion and the long ciliary nerves, and so the cornea and iris.

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[1] When this case was reported at the meeting of the American Ophthalmological Society July 18, 1874, Dr. Matthewson of Brooklyn spoke of a similar case which he had observed Dr. Matthewson's case may be found in the Transactions of the society, 1874, p. 228.

The following case forms an evident exception to the rule. The eruption was present to the tip of the nose, yet the eye escaped.

A little girl, four and a half years of age, suffering from an attack of herpes zoster ophthalmicus, was referred to me at the Boston Dispensary by Dr. F. B. Greenough, November 14, 1873. The mother stated that she had first noticed complaint of pain, and soon after a "pimple" at the root of the nose, about a week before.

When I saw the patient, there were numerous rather deep ulcerations, some of them covered with thick crusts, from beneath which pus oozed. The ulcerations were situated on the right side of the forehead and front part of the hairy scalp, the upper lid, and the whole side of the nose to the tip. The upper lid was swollen and closed. On raising it with an elevator the conjunctiva of the globe was found much congested, but without chemosis; the cornea and iris were clear and bright. There was no affection of the nasal mucous membrane.

The mother did not bring the child with any regularity, and I saw her only once again during the course of the disease, about a week later. The condition of the skin was a little better, the lid still swollen, the cornea and iris normal.

The first part of April, 1874, I visited the child at her home. There were large cicatricial pits on the right side of the forehead and root of the nose; rather smaller and more shallow ones, but still marked, on the upper lid and extending down the side of the nose to the end. The eye was perfectly normal in appearance. The mother said the whole duration of the disease was about three weeks.

It was impossible to obtain the history of the case with accuracy, on account of the youth of the patient, the ignorance of the mother, and her neglect to bring the child as directed. Still the fact of a well-marked eruption of herpes zoster to the end of the nose, without affection of the eye, was established.

The mucous membrane of the nose was also unaffected. The latter circumstance, together with the absence of lesion of the eyeball, would go to show that the naso-ciliary nerve was not involved; and, assuming this to be the case, the presence of the eruption on the side of the nose may be readily accounted for by the supposition of an anomaly of nerve distribution. This supposition is probably correct; variations in the distribution of sensitive nerves are common, and Professor Turner has reported[1] just such a variation as would be required here: "The frontal nerve gave origin to a long, slender, infra-trochlear branch, which passed below the pulley of the superior oblique muscle, to be distributed along with the infra-trochlear branch of the naso-ciliary nerve."

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[1] Journal of Anatomy and Physiology, November, 1871.

RECENT PROGRESS IN OBSTETRICS AND GYNÆCOLOGY.[1]

BY W. L. RICHARDSON, M. D.

GYNÆCOLOGY.

Vascular Growths of the Urethra.—Dr. C. H. F. Routh reports[2] several cases of carunculæ of the female urethra. The disease is usually confined to the external meatus urinarius, where little red, mulberry-like growths, varying in size from that of a pin's head to that of a hazel-nut, are to be seen surrounding the opening. In consistence they vary from a mere pulp to a marked induration. In many cases, where no such tumors are to be seen on a superficial examination, they will be found lying within the urethra itself. They are the seat of exquisite pain, and are accompanied with most agonizing dysuria. Not unfrequently they are the cause of an existing vaginismus. The growth itself is insensible. The mucous membrane, on which these tumors grow, is the sensitive part, since a microscopic examination of the diseased tissues shows an absence of all nerve elements. Occasionally a muco-sanious discharge, which is somewhat offensive, is seen. The disease is most commonly met with among middle-aged females. It is not so frequent among women of acknowledged imprudent habits as among those who are prudent, cleanly, and continent. Removal of the tumor, with cauterization of the bleeding surface, is the best method of treatment. In cases where there is fear of hæmorrhage, the growth may be transfixed and ligated.

Uterine Sarcoma. — After giving a complete history of six cases, previously reported by Professor Spiegelberg, Dr. Kunert gives[3] the following résumé of the chief points in the pathology, course, diagnosis, and treatment of this affection. The disease has never been known to occur before puberty. Its progress is rapid, and terminates fatally. Dr. Winkel cites one case of a reported cure. Carcinoma of the body of the uterus is very rare, and sarcoma is easily distinguished from carcinoma of the cervix whenever débris of the tumor can be found in the vaginal discharges. Hæmorrhage and pain occur early in the course of the disease, while immobility of the uterus is found later. The alteration in the general condition of the patient is the first symptom which usually excites suspicion as to the true character of the disease. As regards treatment, removal is the best course to be pursued. When this cannot be done, resort should be had to injections of carbolic acid, perchloride of iron, iodine, caustic potash, or to the use of the actual cautery.

Dr. Thomas advises, in a paper read before the New York Obstetrical

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[1] Concluded from page 199.

[2] Obstetrical Journal of Great Britain, December, 1874.

[3] Archiv für Gynækologie, vi. 1.

Society, the entire removal of the growth by galvano-cautery, écrasement, excision, or the curette, and the cauterization of its base with chemically pure nitric acid. In cases where the os is closed it should be first dilated by sponge tents. In rare cases the growth terminates the patient's life rapidly; but it has frequently been known to last four or five years. Death is due to hæmorrhage, septicæmia, spread of the disease to neighboring abdominal viscera, disturbance of nutrition, or peritonitis. As a rule, Dr. Thomas does not consider that pain is a constant or early symptom of the disease.

Incision of the Cervix Uteri. — Prof. R. Olshausen[1] divides dysmenorrhœa into three varieties, according as its origin may be considered obstructive, congestive, or ovarian. Incision of the cervix uteri is to be used only in that class of cases, small in number, where the dysmenorrhœa is dependent upon the small size of the external os. In cases where either the internal os or the cervical canal is found to be narrowed by some lesion of the lining mucous membrane, the cervix uteri should never be incised. In all cases where the sound enters the uterine cavity suddenly, as if passing some contracted spot, whether that contraction be owing to disease or is the normal condition of things, an incision should be made. Wherever sterility is found to exist with mechanical dysmenorrhœa, there is always a pathological contraction of the external os. In those cases in which we are attempting the removal of sterility the external os may be incised, even though it appear to be normal. It is a well-known fact that the dilatation of the os, as occurs in labor, is favorable to a subsequent conception, since many women, who have been sterile for a long time, give birth to a number of children rapidly after the birth of the first child.

The best instrument to be used in performing incision is Sims's blunt-pointed bistoury. The blade should in all cases be passed as high up as it is desirable to make the incision, and the cut should be made from above downwards. The instrument should then be withdrawn, and the opposite side cut in the same manner. It is very important that the external os should be so deeply cut as to leave an open slit. The lips are then to be kept apart by tearing any adhesions which may form every twenty-four or forty-eight hours, and a solution of the perchloride of iron should be subsequently applied. Sponge tents should never be used, since they are liable to produce septicæmia. The operation should never be performed if there is any inflammatory process going on in the neighborhood of the uterus.

In those cases where there is anteflexion of the uterus, accompanied by sterility, a good result seldom follows the ordinary lateral incisions. In these cases a wedge-shaped piece should be cut out of the anterior lip. The bilateral incision of the os uteri is recommended in all severe cases of uterine catarrh, since internal medication of the uterine cavity is then rendered more easy of application.

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[1] Volkmann's Sammlung klinische Vorträge, 67, 1874.

The operation of incision is one worthy of the most careful study, and requires the greatest care in the performance of it, as well as in the after-treatment of the patient.

Solid Tumors of the Ovary. — Dr. Leopold contributes[1] a valuable paper on this topic. His résumé of the subject is drawn up after a careful examination of fifty-six cases. He considers that solid tumors of the ovary are very rare, forming about one and a half per cent. of all ovarian tumors. As a rule they retain to a certain degree the shape of the ovary, thus presenting a striking contrast from other ovarian tumors, which are very irregularly shaped. Their consistence varies from that which almost resembles a fluid to that which possesses extreme hardness. The external coat varies greatly in thickness, and upon this amount of thickening depends the relative rapidity of development of the tumor. In cases where the pedicle is short, the tumor may become wedged down between the uterus and the rectum. The presence of a tumor in the ovary rarely affects the uterus.

These tumors may be divided into fibroma, enchondroma, sarcoma, and carcinoma. The fibromas are either simple or complex. Enchondroma of the ovary is very rare, as is also ovarian sarcoma. As regards menstruation, it is possible for the catamenia to continue regularly even after both ovaries are removed, or when both are degenerated.

In the cases reported, ovariotomy was performed eight times, three of the operations resulting successfully. In one case Cæsarian section was performed, owing to a narrowing of the pelvis from the presence of an ossified fibroma.

Lupus of the Genitals. — In a clinical lecture at L'Hôpital de la Charité, Dr. Bernutz gives the following summary of this rare affection.[2] The disease is analogous to lupus of the face, the only differences being those due to the anatomical dissimilarity of the two regions affected, a dissimilarity, however, which greatly aggravates the prognosis of genital lupus. There are two forms of the disease: the tubercular and, what is rarer, the erythematous; but both varieties are usually found together. The mons veneris, the external surface of the labia majora, and the perinæum are the parts usually affected. The diagnosis is difficult, as many who suffer from the disease have such doubtful antecedents as to suggest the possibility of the case being one of a syphilitic origin. The color of the diseased part is dull red; its surface is covered with a layer of imperfect epithelium, and its tendency is to break out into ulcerations which in turn heal, leaving a series of cicatrices and ulcerations to be noticed on the same surface. It is the result, as a rule, of bad air and poor living. The treatment should consist in an attempt to improve the general health, while portions of the growth are excised, and lint, dipped in tincture of iodine and an opiate preparation, is applied, so as to exert a constant pressure on the part. As internal remedies, arsenic, cod-liver oil, and iodine are advised.

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[1] Archiv für Gynækologie, vi. 2.

[2] Archives de Tocologie, July, 1874.

Cystitis in Women. — Dr. J. B. Hicks,[1] in a valuable paper on the local treatment of cystitis in women, considers that but little dependence is to be placed on the efficiency of internal remedies, unless indeed an exception be made in favor of those medicines which are able directly to alter the acidity or alkalinity of the urine, as the case may be. Opium he considers as the most valuable remedy, not only because it relieves the pain which is so serious a symptom of the disease, but also because it has a decided effect in lessening reflex sensitiveness.

In all cases of severe acute cystitis, characterized by pain, by a frequent or constant desire to micturate, by severe scalding along the urethra during micturition, by a constant and intolerable bearing down, and by a urine loaded with mucus, pus, and blood, the first thing to be done is to ascertain the reaction of the urine. As a rule it will be found to be alkaline, although before pus appears in the urine it may be acid. If it is acid and ammoniacal, pass gently a gum-elastic catheter (open at its end instead of its side) into the bladder; draw off the urine; withdraw the catheter just without the neck, when the bladder is on the point of being emptied; then, by means of a syringe, wash out the bladder with warm water slightly acidulated with nitric, hydrochloric, or acetic acid (two drops of the acid to an ounce of warm water): inject until the patient expresses a desire to micturate, when the injection may be allowed to escape. This injection is to be repeated until the urine seems clear of phosphates and mucus; usually about half a pint of acidu'ated water will be found sufficient. Having thus washed the bladder clean, inject about a grain of morphia dissolved in an ounce of water. Withdraw the catheter, instructing the patient to retain the injection as long as possible. In all cases allow the catheter to rest just without the neck of the bladder, using force enough to carry the injection through the sphincter into the bladder. This treatment should be repeated twice daily. In cases where the urine is not markedly alkaline, the bladder may be washed out with a warm solution of permanganate of potash, instead of the acidulated water. After a few days of this treatment, a solution of chlorate of potassa (four grains to the ounce) may be used in place of the permanganate of potash, and afterwards the morphia solution. Where there is no blood in the urine, nor any constitutional effect experienced from the morphia, two grains may be used instead of one.

As the acute symptoms subside, more astringent washes may be used, such as tannin (three grains to the ounce), or three or four drops c solution of perchloride of iron, the morphia injection being used subse quently. In cases where the urethra becomes very tender, it is well t omit the catheterization for a day or two. If after the main symptom subside the urethra still remains tender, a bougie, smeared with tanni and dipped in gum-water before using, may be introduced with decide benefit.

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[1] British Medical Journal, July 11, 1874.

In cases where the cystitis has become chronic, it is well to use a solution of nitrate of silver (from five to ten grains to the ounce) or perchloride of iron (ten minims to the ounce) before injecting the morphia This application is to be repeated a week later.

In the acute stages the warm hip-bath and sponging of the genitals with perfect rest in bed, are to be insisted on, and no alcoholic beverag whatever is to be allowed.

Dr. J. Goodman[1] believes that by far the best treatment of this clas of cases is the insertion of a drainage-tube, thus preventing the retention of any urine in the bladder. The tube must be removed ever three or four days for the purpose of cleaning it, which is best accomplished by placing it in acidulated water.

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THE COMMISSIONERS OF LUNACY.[2]

This is the report of a special commission appointed in June, 1874, to examine the lunacy laws and the condition of the insane in hospitals. The bod of the report is by Dr. Nathan Allen, of Lowell, upon whom all the labor ha devolved. We pass over the statistical portion briefly.

Dr. Allen estimates the number of the insane in the State at over four thousand, of which two thousand two hundred and fifty-six are in hospitals, fou hundred and thirty-eight in alms-houses, and the rest in private families. According to the National and State censuses, there is an increase of insanity in a ratio beyond the increase of population. This is most marked with the foreign element, instead of in the native class as we should expect from the writer's well-known views of the deterioration of the native stock. To account for thi fact, he has to suppose change of climate and habits, as a very efficient caus of insanity. It seems unreasonable, however, to allow these causes to hav such an immediate effect. It is more likely to be due to a forced or voluntar immigration of many partially demented or insane persons, who fail of selfsupport, or to a real inferiority in mental and physical stamina, as compared with the native class.

After discussing the problem of how to dispose of the large class of chroni insane, he concludes by recommending another special asylum like the one a Tewksbury. This is the class, however, which is best adapted to the cottag or family system, or the "farming-out" plan in use at Gheel and happily obsolete elsewhere. It is therefore to be supposed that Dr. Allen does not agree with his colleague, Wendell Phillips, who in a brief supplementary report recommends Gheel as a model. A hundred years ago, many paupers and lunatics were "let out" to New England farmers by town authorities, and every village was to some extent a Gheel. In Belgium, one village is made to do duty for all; but the system and its objections are the same everywhere.

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[1] American Journal of Obstetrics, November, 1874.

[2] *Report of the Commissioners of Lunacy to the Commonwealth of Massachusetts.* 1875.

It is unnecessary to go through the report in detail, as no new ground is broken, or new questions discussed, except in the last few pages, which contain arguments in favor of a permanent commission of lunacy. The first relates to the importance of creating "a guardian, protector, or defender for those whose natural rights or liberties have by interference of law been taken away or abridged." The second presents the advantages of having an agency, to "gather up the improvements made in hospitals at home and abroad, and also the most advanced views of men devoted entirely to the study and treatment of insanity, and bring this knowledge to bear upon the improvement of the insane, especially in our own State." Such a commission has existed for some time in Great Britain, and has been of great service in accomplishing the above desirable objects. There are some reasons, however, why a commission would be less required in Massachusetts. In Great Britain private asylums exist in large numbers; to which are sent all persons able to pay for such accommodation. These were formerly quite independent of official control or supervision, and in them are said to have occurred abuses utterly impossible in public asylums, like our State institutions. Except the one hundred and fifty patients at the McLean Asylum, Somerville, not forty insane persons are in private asylums in our State.

We have, moreover, the Board of State Charities, which, as their voluminous reports show, for ten years have been assiduously exercising the second named function of such a commission as Dr. Allen recommends. If they have not acted as "guardians, protectors, and defenders" of the insane, it was not for want of authority to visit and to investigate any case of suspected injustice. If the board as at present constituted cannot act as a permanent commission of lunacy, it would seem that a competent agent might be chosen, so as to avoid the appointment of another and separate supervisory board for the insane.

The report very properly urges on the State certain improvements and changes which hospital superintendents have for a long time advocated, namely, separate asylums for inebriates, criminal insane, and epileptics. It is probable, however, that with proper classification those epileptics who are mentally affected could be more suitably cared for, as at present, in hospitals for the insane. The appeal for better facilities for utilizing insane labor is also an echo of the hospital cry for "more land." The State has been remiss in neglecting the valuable suggestions scattered through asylum reports for years, and we cannot agree with Dr. Allen's nameless correspondent that no effort is made by superintendents to enlighten the public as to the proper treatment, and especially the prevention, of insanity. The steady advance in the knowledge of insanity and its treatment, the more humane and sympathetic management of the insane, the improvements in hospital construction, have all emanated from the hospita itself, and not to any great extent from commissions or outside sources. It is ungenerous to ignore this fact, as is the fashion with certain reformers who hav not Dr. Allen's general professional qualifications for the task of special commissioner. The public, be it said, never had so much confidence in hospitals o availed itself so readily of their advantages as at the present time, in spite o inherent defects, accidents, and abuses, and the disparagement of well-meanin philanthropy.

Dr. Allen makes no suggestions for changes in the insane laws. Mr. Phillip in his report, and Mr. Sewall in an appendix, do suggest radical changes. The would evidently recommend a code which, while adapted to expose exceptiona injustice in commitments, should be applied with all the cumbersome details o legal machinery to every poor sick and insane man or woman who seeks personally, or through relatives, the privacy of an asylum. The latter, instead o giving the judge discretion whether to see a patient or not, would insist tha he should see him or her, however sick or insanely apprehensive. To conside all the criticisms of the appendix would, however, take space which has bee too far trespassed upon already. T. W. F.

TRANSACTIONS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

WE recognize in this work[1] a notable contribution to the literature of sa tary science. The association under whose auspices the volume has been issu is still in its infancy, but it is an infancy of remarkable vigor and great promi If the present publication is to be considered fair evidence of the plans a purposes of this enterprising body of sanitarians, we may confidently anticipa from them much excellent work which will reflect great credit not only on t individual members of the society but also on American zeal in the developme of public hygiene; indeed, with such a witness before us, it is not unreasona to predict that the leading place will presently be yielded to America in t fruitful prosecution of sanitary investigations.

The essays in this volume comprehend a wide range of topics, into the d cussion of which the writers have brought originality, thoroughness, and es cially earnestness. Of course it would be impossible to find equal merit display in all the forty-eight contributions here gathered; and it would be very stran if we did not come now and again upon statements and arguments which a not convincing. But making due allowance for the certain quantity of cru and fanciful theorizing and impracticable planning almost inevitable in the handling of a great subject as yet in the first stages of its evolution, we find th general character of the work to be eminently praiseworthy.

The extent of the field which these investigators have entered with suc hearty zeal is shown by the following division of subjects: —

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[1] *Public Health.* Reports and Papers presented at the Meeting of the American Publi Health Association in the Year 1873. New York: Published by Hurd and Houghton; Th Riverside Press, Cambridge. 1875.

1. Reports upon Physiological Subjects relating to Hygiene. 2. Reports upon Educational, Social, and various Physical Conditions relating to Hygiene. 3. Local and Domestic Sanitary Care of Contagious and Infectious Diseases; Vaccination. 4. Summary of Evidence and Local Reports upon Cholera as it has prevailed in the Mississippi Valley and elsewhere in America during the Year 1873. 5. Reports upon Yellow Fever. 6. The Principles and Practice of Quarantine in the Ports and Cities of the United States; Experience and Requirements. 7. The Sanitary Care and Utilization of Refuse of Cities; Disinfection and Disinfectants. 8. General Sanitary Laws; State and Local Organization for Sanitary Administration. 9. Water Supplies of Cities.

We have space for the mention of only a few of the many instructive papers in this volume; but we cordially recommend the entire work as of great value to medical men, and also to all who have the care of the public health in their official charge.

The opening address, by Dr. Stephen Smith, the president of the association, is marked by a high degree of hopefulness and enthusiasm. It deals with the potential side of public hygiene, indicating the results which, in the writer's view, sanitarians have in store for them as a kind of millennial reward for their labors. The author's drift of thought is as follows: The normal period of man's earthly existence, to which he has an inherent right under the laws governing his development, growth, and decay, is one hundred years; therefore death from other causes than old age, being accidental and unnatural, is preventable by human agencies. To be sure, the human race at present falls far short of this normal standard, and only three persons in every thousand attain their rightful period of life; but it is the lot of sanitarians to do very much toward restoring the natural condition of things — to prevent all mortality save such as comes at the end of a very ripe senility. Dr. Smith is not discouraged by any practical obstacles, immediate or remote, in the way of a realization of this result, but with evident sincerity declares his belief in man's ability, under hygienic teaching, "to lengthen or shorten at will his earthly existence." He would make sanitary knowledge more universal; he would have physiology, pathology, and public hygiene taught in the common schools and in the colleges, as well as in the strictly medical schools; and he would insist that State governments and the national government should aid the work by proper legislation and by the institution of special organizations and bureaus.

President Barnard, of Columbia College, presents a very able review of the germ theory of disease. He traces the history of the discussions and investigations concerning the doctrine of the propagation of germs in diseased tissues and touches incidentally on the merits of the chemical or fermentation hypothesis. Finally, after a careful and impartial analysis of the evidence on both sides, he concludes that neither the germ theory nor the fermentation theory is exclusively true, but that each has a range of action peculiar to itself. We admire the candor, not less than the learning, displayed in this able essay.

Dr. Austin Flint reviews the various theories of the etiology of typhoid fever, laying special stress on the relations of drinking-water to fever-propagation. As a general proposition, he maintains that the typhoid virus enters the system by the alimentary canal only, and that of all the possible vehicles of the poison, contaminated drinking-water is the most frequent. He does no however, accept Budd's hypothesis that the contagium of the fever resid only in the typhoid dejections; this doctrine will account for a certain pr portion of instances but will not explain the isolated, sporadic cases whic could have had no connection with other previous ones. As illustrating the clo relation between contaminated drinking-water and autumnal fever, Dr. Fli relates the cases which occurred in 1843 in North Boston, and to which h refers in his well-known work on the Practice of Medicine. Certainly a bett demonstration of the causation of typhoid could hardly be found. In discussin the etiology of enteric fever, Dr. Flint omits all mention of organic decompo tion as a source of the disease; we believe that such decomposition, especiall when it occurs under cover, is now recognized as one cause of the malady.

A considerable portion (one hundred and seventy-one pages) of the volum is devoted to detailed reports concerning the cholera epidemic of 1873. The reports are contributed by different observers and comprise an exhaustive an valuable account of the disease in its march across the country. Appended these special papers are essays on the proper measures for the prevention an treatment of cholera, by Dr. S. Smith, and on the origin and spread of the di ease, by Dr. J. C. Peters. A *brochure* by Prof. Max von Pettenkofer, contai ing practical suggestions as to the sanitary and curative agencies to be em ployed against cholera, is reprinted, and Dr. Harris adds some excellent concl sions respecting the causes of the disease and their removal. This whole seri of papers is a most valuable contribution to epidemiology.

Dr. Vanderpoel, the health-officer of the port of New York, discusses th subject of quarantine with great clearness and comprehensiveness. The wri er's experience entitles his opinions to much respect, although his liberal view of the practical operation of quarantine would hardly suit the conservative a vocates of the strict conventional measures to prevent the importation of infe tion. Dr. Vanderpoel asserts that no formal, unvarying rules of quarantin are applicable to all cases alike, but that each port, each ship, each case of di ease must be judged according to its own special character. The author ve justly insists on the need of quarantine supervision of clearing as well as of e tering ships.

Dr. Elisha Harris, the secretary of the association and the editor of the Transactions, has an instructive paper on State and local sanitary organization He points out the functions of such organizations and the immense influen they may have on the welfare of every community. He urges that registra of vital statistics shall be in close relation with the sanitary authorities, if n subordinate to them. Finally, he shows that boards of health may do gre good as sanitary educators, and as inspectors of public institutions, scho houses, reformatories, and the like. A summary of the laws under which St boards of health have been organized is given at the end of this paper.

The volume closes with an exceedingly interesting essay by Dr. Chandl upon the sanitary chemistry of waters, with special reference to the wa supply of towns and cities. The writer has here presented many facts co cerning the sources of supply, the impurities ordinarily found, and the process natural and artificial, to insure purification. Dr. Chandler is not an alarm on the question of water-pollution; he believes that running streams can purify themselves of all contamination, by the spontaneous oxidation of organic matters received from sewers and surface drainage. He moreover asserts that there is small room for fear from the pollution of water-courses by the refuse of factories, for the diluting capacity of rivers is immense. Such conclusions should be reassuring at the present time in this vicinity, when so much is said about the pollution of Lake Cochituate by the sewage of Natick. Many negative facts may indeed be presented to show that the contamination of water supplies by organic refuse is not harmful ordinarily; but we are of the opinion that the majority of sanitarians would prefer to err on the safe side in practice, and would counsel ceaseless vigilance to prevent the pollution of rivers and lakes by sewage.

The volume bears the imprint of the Riverside Press. This statement of itself is sufficient intimation that the work is excellent in all the details of its mechanical execution. In addition to the clear type and accurate proof-reading, the numerous beautifully-finished maps, diagrams, and illustrations which embellish the pages are worthy of special mention. F. W. D.

OPHTHALMOLOGICAL TRANSACTIONS.[1]

Seldom in a work of a little more than one hundred and fifty pages do we find a larger number of interesting papers. Among these essays is one on the Atropine Treatment of Acquired and Progressive Myopia, by Hasket Derby, M. D. The conclusions at which the writer arrives are, —

"That the emmetropic eye, through undue or disadvantageous use, acquires myopia much more frequently than has previously been supposed, and that such acquired myopia is very apt to be progressive, commencing with spasm of accommodation and going on, through a state of congestion and irritation, to the structural change characteristic of this error of refraction.

"That the paralysis of the accommodation by means of atropine, persisted in during a period of several weeks, and furthered by rest of the eyes, shaded glasses, and, in extremely aggravated cases, by local blood-letting, offers a reasonable prospect of preventing the progress of the myopia, in some instances of lessening its amount, and, in occasional recent and slight cases, of removing it altogether.

"That in cases of progressive myopia it is reasonable to expect positive results from an annual course of treatment similar to the above, carried on during those years which experience has shown to be most favorable to the advance of the myopia, thus enabling the patient to tide over a critical period. It is perhaps in its prophylactic action that the most importance is to be attributed to the atropine treatment."

A table giving the results in thirty-six cases of myopia treated with atropine, accompanies Dr. Derby's report.

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[1] *Transactions of the American Ophthalmological Society.* Tenth Annual Meeting, Newport, July, 1874. New York: Wm. Wood & Co.

Dr. B. Joy Jeffries reports the fact of a Foreign Body in the Globe only producing Sympathetic Trouble after Thirteen Years. The patient some thirteen years ago was struck on the right eye by a piece of spring which cut through the cornea. For two or three years his sight held good, then it gradually failed, and in some five months was gone. From that time till some eight weeks previous to May 6, 1874, there was no pain, but at the latter date marked sympathetic disturbance having come on in the other eye, enucleation of the right eye was performed and the patient perfectly relieved.

Dr. Arthur Matthewson, of Brooklyn, calls attention to a New Method of treating Blepharospasm. His patient was unable to open her eye on account of spasmodic action of the orbicularis. It occurred to Dr. Matthewson that if the lid could be kept elevated for a time the spasm might be overcome. Accordingly a band of rubber about a line in breadth, half a line in thickness, and an inch in length, was attached by one end to the surface of the upper lid near its lower edge, at the middle of its horizontal length, a strip of isinglass plaster, notched so as to adapt itself accurately, being applied across the band, and the whole covered with collodion and allowed to dry till firmly adherent. Then the band was stretched to an inch and a half, so as to elevate the lid moderately, and fastened to the forehead in the same way. The band was kept in place twelve days, when it was found that the blepharospasm had been entirely overcome.

Dr. Hay, of Boston, and Dr. Noyes, of New York, call attention to instruments of their invention.

Drs. Wadsworth, Jeffries, and Matthewson report cases of herpes zoster ophthalmicus. Dr. Matthewson's cases were treated by electricity.

The report also contains papers by Drs. Thompson and Norris, of Philadelphia; Dr. Murdoch, of Baltimore; Dr. Green, of St. Louis; Dr. Prout, of Brooklyn; Drs. Loring, Bull, Agnew, and Althof, of New York; Dr. J. F. Noyes, of Detroit.

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VIVISECTION.

In regard to the importance of experimentation on animals as a means of advancing our knowledge of medical science, there is but little difference of opinion among members of the medical profession. The question is one, moreover, with which medical men alone are competent to deal, for they can judge of the importance of the question which the experiment is intended to solve, and estimate at its true value the amount of suffering which it may occasion the animal. It unfortunately happens, however, that the laity, though possessing no means of reaching an intelligent decision, is uncommonly ready to express its opinion on this subject. It has even happened that societies for the prevention of cruelty to animals (organizations which, when properly controlled, may confer incalculable benefits not only upon the brute creation but also upon the human race) have invoked the majesty of the law to punish investigators in this branch of medical science.

An account of the persecution to which Professor Schiff, of Florence, was subjected by ignorant and zealous "philozoists," and the triumphant refutation of the charges made against him, have been already presented to our readers.[1] A still more striking example of this sort of misdirected energy is afforded by the public prosecution at Norwich, England, of Dr. Magnan, of Paris, and several English physicians, "for that they . . . . did unlawfully ill-treat, abuse, and torture certain animals — to wit, two dogs — contrary to the statute." The facts in the case are briefly these. At the meeting of the British Medical Association in August last, M. Magnan, of Paris, desiring to present to the medical profession of England the results of his investigations into the power of absinthe to produce epilepsy, obtained permission of the executive committee to illustrate the subject by injections of alcohol and absinthe into the veins of dogs. The result of the experiment was that the dog which had received the dose of alcohol became unconscious for a period of several hours, after which complete recovery took place; while the dog into whose veins absinthe had been injected had an epileptic attack which proved fatal, neither of them having apparently suffered any pain beyond that produced by the incision over the femoral vein. The principal witness for the prosecution, which was conducted under the auspices of the Royal Society for the Protection of Animals, was Mr. Tufnell, President of the Royal College of Surgeons in Ireland. This gentleman testified that he protested against the experiment as cruel and unnecessary, at the time of its performance, and actually cut one of the dogs loose from the board on which it was secured, with the remark, "I am a sportsman as well as a surgeon, and I will not see a dog bullied." Unfortunately no decision was reached in this case, as the prosecution fell through from lack of evidence that the defendants took any part in the performance of the experiment.

To prevent the repetition of such occurrences, it is only necessary that an enlightened public opinion on the subject should be formed; that it should be thoroughly understood how really insignificant is the pain inflicted in most physiological experiments, and of what vast importance are the results to which such investigations lead. As a means of public enlightenment on this important subject, we welcome Professor J. C. Dalton's little volume on "Experimentation on Animals as a Means of Knowledge in Physiology, Pathology, and Practical Medicine." In this work the author describes, in concise and untechnical language, first, the character of physiological experimentation, particularly in regard to the amount of pain inflicted; secondly, the necessity of such investigations as the only means by which we can hope to increase our knowledge of physiological laws which form the foundation of medical science; and thirdly, the results already accomplished in this field of scientific research. In the last two chapters are to be found resolutions of various medical societies and testimony of distinguished men and experts bearing upon the question. The book is to be strongly recommended to all who desire to form an intelligent opinion on this subject.

While favoring vivisections, we do not lose sight of the fact that unnecessary pain has been inflicted by experimenters, and may be again inflicted by those who have no regard for the sufferings of animals. The laboratory is as liable to abuse in this respect as the hospital ward or the operating theatre. Instances of such abuse in this country are, however, in either case, happily rare. Our physiologists are as humane as any other class in the community, and are fully alive to the importance of this question. We think, therefore, that the matter may be safely left in their hands.

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[1] Boston Medical and Surgical Journal, August 13, 1874.

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THE REMEDIAL USE OF WATER.

An interesting and instructive article on this subject has recently been written by Dr. Austin Flint, of New York, and is published in the *American Practitioner* of January, 1875. The article is especially designed to call attention to the researches of Dr. James Currie, who during the last decade of the eighteenth century was an ardent advocate for the use of water in febrile affections. As our readers well know, cold-water baths as a means of diminishing preternatural heat have been employed of late, particularly by German physicians. Its advocates adopt this treatment at the present time purely for an antipyretic effect; but Currie did not regard the remedial use of water exclusively in this light. He considered the sudden and powerful impression produced upon the nervous system as especially important, and therefore chose affusion as the mode of its employment. Currie's publications consist of a duodecimo of four hundred and thirty pages, comprising two volumes in one. The first volume appeared in 1797, and the second several years later. In his writings, Currie made no claim to having originated the method of treatment which he advocated, but states that he was led to make trial of it from the publication of an article by Dr. William Wright, in the *London Medical Journal* for the year 1786. Currie resorted to Dr. Wright's plan on the occasion of the prevalence of enteric fever in the Liverpool Infirmary, and was so well satisfied with the results that he continued to make use of the affusion of cold water in cases of low contagious fever in which the strength was not too much exhausted, and he preserved a register of one hundred and fifty-three cases in which the cure was chiefly entrusted to the remedy. Later he recorded only the cases in which it proved unsuccessful. Chapter III. contains an account of a continued fever which prevailed in a regiment of troops in Liverpool. The epidemic "extended to fifty-eight persons in all, of whom thirty-two went through the regular course of the fever, and in twenty-six the disease seemed to be cut short by the cold affusion. Of the thirty-two cases, two died." The water employed on this occasion was taken from the river Mersey. It was of a temperature of from 58° to 60° F., and contained in solution about a thirty-second part of sea-salt.

In Chapter IX. Currie discusses the employment of cold water in small-pox. Used in six or seven cases during the fever which precedes the eruption, the severity of the symptoms immediately abated, "and the disease assumed a benignant form." Further on in the work he claims to have found the cold bath a most useful remedy in the convulsions of children, whether originating in teething or otherwise. He also recommends it in hysteria, and details a case of acute mania brought on by drinking, where the patient was hurled headlong into the bath and came out calm. The treatment was repeated with benefit as often as the state of insanity returned. Currie never found the cold bath to be of service in chorea or epileptic paroxysms.

His observations were not limited to cold affusion. He employed also affusion of tepid water, and regarded the latter as "applicable to every case of fever in which the cold affusion is recommended, and those may receive much benefit from it whose fears or whose feebleness deter them from that energetic remedy." He did not find its effects so permanent as those of cold affusions. He also used affusions of cool water, of a temperature of from 87° to 75°. He regarded sponging with cold or warm vinegar or water as less beneficial than the cold or tepid affusion, and in many cases as less safe, "for," to quote his words, "the system will often bear a sudden, a general, and a stimulating application of cold when it will shrink from a slow and successive application."

He preferred sea-water, or water to which salt is added, at a temperature of from 40° to 50° F. His method was to pour over the naked body a bucketful, or from four to five gallons, the patient being immediately dried with towels and replaced in bed. The immediate effects were the reduction of the temperature of the body frequently to its normal standard, a diminution of the pulse often from twenty to forty beats per minute, with relief of headache and other symptoms.

It is interesting to know that Currie fully recognized the importance of measuring the heat of the body with the thermometer. He recommended that the instrument be introduced either under the tongue or into the axilla of the patient. He had curved and self-registering instruments, made very similar to the clinical thermometers of the present day.

In his second volume, Currie had nothing to detract from the accounts he had previously given of the efficacy of the cold-water treatment. He states that in 1801 he used affusions with less striking advantage in continued fever than on former occasions. He lost, however, but two cases out of twenty-three. "As extensive as my employment of the affusion has been," he says, "I have never heard that it has suggested even to the fears or prejudices of others a single occasion of imputing injury to the remedy." He conjoined with it remedies of the most simple kind — saline draughts, doses of laudanum, mineral acid drinks, milk, gruel, and occasionally wine.

Dr. Flint states that the cases of continued fever treated by Currie probably embraced examples of both typhus and typhoid fever, and perhaps acute pneumonia.

Currie was a strenuous advocate for the employment of the cold affusion in scarlet fever. The vivid account he gives of his shutting himself up with his two boys when they were attacked with the disease, and with his own hands assiduously plying the cold affusions till he considered them out of danger, shows the faith he had in the remedy, and the zeal which a father's love prompted him to put forth in its employment. The heat in the eldest rose to 109°, in the youngest to 108°, and the pulse in each to upwards of 150. In thirty-two hours the first had the affusion fourteen times — eight times cold, twice cool, and four times tepid. Twelve affusions sufficed for the youngest, of which seven were cold. On the morning of the third day they were both evidently safe.

Dr. Flint shows the points of similarity and contrast when recent views are compared with those of Currie. According to both the older and the more recent theories the reduction of the preternatural heat of the body is the main object. In recent views this is the only aim, but Currie held that an effect was produced, in addition to the withdrawal of heat, by a curative impression which he did not undertake to explain. In the mode of employment there is a contrast between affusion and the bath. In both, the importance of thermometry in determining the indication for and the effect of the treatment is alike appreciated. Currie's researches did not extend to inflammatory affections, while recent advocates seek for the abstraction of heat alike in symptomatic and in essential fevers. Currie aimed to cut short fevers, and his success in this respect seems to have been remarkable. Modern treatment has not so much reference to this object as to the diminution of the intensity of the disease and of danger.

Dr. Flint has to a limited extent made use of the treatment by the wet pack, and with advantage in continued fever and scarlatina, and to a larger extent in cases of insolation, or thermal fever. His method of employing the wet pack is to envelop the naked body in a sheet saturated with cold water, and to place the patient on blankets covered with india-rubber cloth; cold water is to be applied over the body from a sprinkling-pot at intervals of a few minutes, and the treatment to be kept up according to the effects on the temperature, pulse, and other symptoms. He regards the pack, when employed thus, to exert all the advantages of the bath.

The article closes with some remarks on the use of water internally as a remedial measure.

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MEDICAL NOTES.

— The regular monthly meeting of the Suffolk District Medical Society will be held on Saturday next at 7.30 P. M. There will be a report of the Committee on Rooms, and an election of delegates to the American Medical Association. Dr. Bixby will report a case of colloid degeneration of both ovaries.

— The Board of Health of New York have appointed Drs. Edward Curti and Thomas E. Satterthwaite, of that city, to investigate the subject of diphtheria, with a view to determine more nearly, if possible, the character of the disease and the best means for contending with it.

— Miss Alice Vicary, the first and only registered lady pharmaceutist in England, has just passed, in company with Mrs. Kingsford, the first year's examinations of the School of Medicine of the University of Paris.

— By royal decree, female students in Sweden are to be admitted on the same terms as males to all the examinations in the universities, except those for the licenses in theology and law.

— In consequence of a fall of snow and sleet there were two hundred and sixty accidents in Paris on New Year's evening.

—Dr. J. M. Toner, of Washington, D. C., recommends, in the *American Medical Weekly*, the following: "Have a large rubber stocking, or boot if you choose to so call it, made double or in duplicate, the inner one the smaller, but joined at the top to the outer one, so that between the two there will be formed a sac. This boot can be readily drawn on the foot like a loose stocking, and then the interspace between the layers is to be filled with warm water. The pressure of the water will apply the surface of the inner boot, which should be lined with cotton or woolen cloth, to all parts of the limb as high as you choose to have the boot come, and thus impart a continuous warmth to the foot and limb. The outer boot must be so made as to allow of the water being drawn off when it becomes cool, by means of a stop-cock and tube, and additional warm water introduced without any disturbance to the patient and but little displacement of the bed-clothing."

—Frequent deaths from overdoses of chloroform continue to be reported. What is an overdose? In fatal cases it is usually stated that but a very small quantity has been administered — a drachm, or even a few drops only.

—Dr. Gesualdo Clementi, of Sicily, was called on August 15, 1874, to a woman who had been suffering for a fortnight from cough and hæmoptysis. She had always previously enjoyed good health, but was now quite aphonic, and suffered from attacks of severe dyspnœa. Physical examination failing to discover anything abnormal about the chest, the laryngoscope was employed, and it was found that the opening of the glottis was occupied by a horse-leech, which was attached to the right arytenoid cartilage by its oval disk. Most of the body was hidden beneath the vocal cords. Numerous attempts were made to extract it on the first day of its discovery, but it was only on the next day that the leech was removed by the use of a pair of forceps with small recurved teeth. A good deal of force was employed in its extraction. This is the third case in which a leech has been discovered in the larynx, and extracted by the help of the laryngoscope.

—Dr. Madison Marsh, of Port Hudson, La., in a paper in the *Medical and Surgical Reporter* of January 16, 1875, states that in a large and extensive practice of over twenty-five years, in the whole round of toxicological agents and virulent poisons he has not witnessed so many fatal cases, by accident or design, as have come under his notice since the introduction of chloral hydrate. Of the many fatal cases which have come to his knowledge he reports four at length, where during the past year patients suddenly died from the use, he is firmly convinced, of chloral hydrate. In strong language he warns against the incautious use of this agent.

—Messrs. J. T. Brown & Co. inform us that through the courtesy of Messrs. S. Maw, Son, & Thompson, of London, they have received a specimen of the new drug jaborandi, which is said to possess powerful sudorific and sialogogue properties; they will be happy to show the sample to the readers of the JOURNAL, and to furnish such information as they have in regard to it.

—The medical profession is well represented in the Italian parliament, in which the last elections have placed twelve physicians and surgeons, and one accoucheur.

— A good instance of the successful transfusion of blood is recorded in *L'Imparziale*, No. 11, 1874. The operation was performed by Professor Caselli, for Professor Livi, in the case of a girl affected with lipomania and stupor, who was unable to articulate a single word, or to perform any at all complex movements, and who presented the general appearance of a cataleptic. The blood employed was taken from the carotid of a sheep, two ounces flowing from the vessel every fifteen seconds, and allowed to pass through a tube directly into the vein of the patient. After flowing for this space of time, its further ingress was stopped. In the mean while the patient appeared to be revivified. She improved in appearance, made a deep inspiration, gained color, spoke a few words, and made movements. These effects were persistent, and the patient made a good recovery.

— Dr. Evan Pierce, J. P., county coroner and five times mayor of Denbigh, has lately been the recipient, says the *Lancet*, of an honor which falls to the lot of but few living men. The foundation stone of a column to be erected in Denbigh by public subscription in honor of Dr. Pierce was laid. The column is to be ninety feet high, surmounted by a statue of the doctor, and is to cost £1000. A procession, consisting of all the influential inhabitants, with the fire brigade, and other public bodies, paraded the town prior to the ceremony, at the conclusion of which a large and distinguished party were entertained at a banquet by Dr. Pierce.

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SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

Operations were performed under ether in the following cases during the week ending February 6:—

1. Stricture of the urethra. 2. Strangulated femoral hernia. 3. Hare-lip. 4. Injury of foot. 5. Felon (three cases). 6. Necrosis of humerus. 7. Fistula in ano. 8. Talipes varus. 9. Fatty tumor of arm. 10. Supernumerary toe. 11. Necrosis of femur. 12. Wen. 13. Abscess (two cases). 14. Hematocele.

1. *Stricture of Urethra.* — The patient was a middle-aged man, who thirteen years ago had gonorrhœa; since then the urethra had gradually diminished to the size of a No. 6 elastic catheter. Five days after admission he was etherized, and the stricture ruptured by Voillemier's divulsor. During the following month the stream again decreased in size, and quite recently the integument of the perinæum became red and somewhat tender, the scrotum being involved with black spots upon its surface. A large catheter was passed and free incisions were made to relieve tension.

2. *Strangulated Crural Hernia.* — The patient was a woman sixty-three years old, and the hernia had existed fifteen years. Symptoms of strangulation commenced twenty-four hours before she entered the hospital, the hernial tumor being of the size of a hen's egg. Dr. Bigelow cut down upon the intestine, which was strangulated at a very narrow orifice and quite discolored; it

was also adherent to the neck of the sac. After being carefully detached the bowel was returned to the peritoneal cavity; but the patient died of peritonitis the following day.

4. *Injury of Foot, with Laceration of the Soft Parts, Extensive Extravasation of Blood, and Fracture of Phalanges, by Railroad Accident.* — It was impossible to say how much of this foot could be saved, but the patient being a young and healthy one, Dr. Bigelow thought it better to wait and be guided by a line of demarcation at a future time. The foot with the ankle was tensely distended by coagula, and was bleeding at several small orifices. A sound entered beneath the integuments passed readily in all directions, the skin being everywhere detached from the foot and ankle. There was reason also to fear that the ankle-joint was injured. The important thing was to evacuate the imprisoned coagula and relieve the tension of the integuments of the foot by free incision, with the view of preventing their mortification. This patient has since done well, losing by mortification only two toes and about one quarter of the integuments of the foot, which may, on that ground, require partial amputation. A large abscess has been opened over the inner ankle, but the joint seems sound.

In contrast with this case, a middle-aged man entered the house a few days after, with a compound fracture of the leg, which was largely distended with blood, and so crushed as peremptorily to require amputation, which he persistently declined. Acute mortification ensued the next day, with dusky spots high on the thigh. It was then too late to operate and the case terminated fatally.

7. *Fistula in Ano.* — Dr. Bigelow spoke of the importance of making the incision correspond as far as possible to the direction of a radius of which the anus is the centre. Such incisions heal faster than when parallel to the margin of the anus or terminating in it with an oblique and pointed flap.

H. H. A. Beach, M. D., Surgeon to Out-Patients.

LETTER FROM PHILADELPHIA.

Messrs. Editors, — Until recently, students of all the medical schools of Philadelphia, of whatever ilk, have been allowed to attend the medical and surgical clinics at the Philadelphia Hospital. Each student, if he attended these clinics for a certain length of time, was furnished with a certificate to that effect. It was found, however, that some of these students (notably of the genus homœopath) after receiving their certificates retired to the country, or elsewhere, and, using these documents in lieu of the regular diploma, began practice. Hence the board of managers issued orders to the effect that no more homœopathic students should be admitted to the clinics, whereat, with great fracas, uprose the homœopathic professors and demanded their rights! Whereupon the board of managers takes the bit in its teeth and commands that no more certificates be issued to any student whatsoever; which will cause no special loss to anybody other than the knaves who attempt to do honest men's work without license.

Homœopathy has its charms. For example, a well-known gentleman was carried to his home, the other day, suffering from intense pain through both lungs. He was a believer in homœopathy, and one of its disciples was called. He prescribed his tincture, and then sat chatting with his patient until the latter fell back and died. Meanwhile the members of the patient's household, non-believers in Lilliputian medicine, sent for a regular practitioner, with the word that a gentleman needed to be *bled.* (Out of the mouths of babes and sucklings may these astute homœopathists learn wisdom!) The physician arrived too late. The robust man was dead, and the homœopath had complacently informed the family that he died of *cerebral apoplexy!* The physician last called was horrified to find that the only effort toward relief had been offered in the shape of *two goblets of water and a teaspoon.* No cupping, no blister, not even a cataplasm had been applied to the agonized chest of the sufferer. Even though the patient was gone, there were evidences that he died of congestion of the lungs, which proved to be the case. Verily this was an instance which justified unparliamentary language. Vive Homœopathy!

We are patiently waiting for the result of a protest from many of the physicians of Philadelphia against the establishment of a stock-yard and abattoir on an immense scale on the western bank of the Schuylkill, but quite near the city. An expert from Chicago (Dr. Rauch) was invited to give his opinion touching the probable effect of such an establishment. He thinks that during the prevalence of certain winds the death-rate at the University and Blockley hospitals would be increased by the effluvia from the slaughter-house, and that when other winds prevailed, the city proper would be affected; and finally, since the current of the Schuylkill on its western side is very sluggish, Dr. Rauch argues that the offal, blood, and other débris which would be thrown into the river would not be carried away, but would decompose and render the stream an unhealthful companion to the city. It is this communication of Dr. Rauch's which the signatures of the physicians indorse. What the Pennsylvania Railroad Company will conclude is now the unanswered question. Apparently they mean to establish the abattoir in spite of this medical protest, which bears the names of scores of the leading physicians of Philadelphia. Personal interest outweighing soul in a large corporation, we may anticipate obstinacy on the part of the Pennsylvania Railroad Company.

The faculty of the university medical school, still lacking the funds necessary to the completion of their plans, are moving for another grant from the legislature, Dr. Pepper as usual being the active spirit. The managers ask for $125,000, and promise to raise a like amount by subscriptions. It is to be hoped that the legislature will be renewedly generous. The Jefferson College subscription fund has already reached $100,000, which entitles the college to an equal sum from the State. As yet, I believe, no move has been made towar an application of the funds.

Our streets have been sweetened by a larger proportion of snow and ice than usually falls to the share of Philadelphia at this season. The city has frequently been a glare of ice, and sidewalks in many localities have been so shamefully neglected that the surgical records of the Pennsylvania Hospit have been swelled by scores of fracture cases. The sidewalks about the cit parks have been simply untouched, it being above the dignity of the street commissioners to do more than draw their salaries and misuse appropriations.

The medical fraternity of the city recently enjoyed a quiet smile over a consultation which was called in a case of pneumonia, one of the physicians called being a distinguished surgeon and the other a leading obstetrician. It may be that the susceptibilities of the specialists are sadly wounded. Much of the ancient professional dignity still clings to the physicians of Philadelphia, and specialties and other infringements upon the old régime have many enemies. But in the matter of vehicular turn-outs there are now seen the most startling innovations in shape of trotting-wagons, "fancy matched pairs" in red-wheeled buggies, bright bays of lively disposition driven in pairs with breastplate harness, etc. John Knox stoutly asserted, "The devil shan't have all the good tunes," and forthwith introduced inspiriting melodies into the church service. In these spirited medical turn-outs perhaps we see another application of the same idea. Apropos of doctors' carriages, old Dr. Condie, of Philadelphia, still living, who wrote a book on "Diseases of Children," and who would never keep a carriage in spite of his large practice, is made responsible for this *mot:* "If a doctor drive one horse, it indicates physical weakness; if he drive two, mental weakness."

Interesting experiments were performed, a few days since, upon the body of Heidenblut, the murderer, directly after his remains were removed from the gallows. Those upon the laryngeal nerves were instituted at the request of Dr. Weir Mitchell, and were skillfully performed by Dr. W. W. Keen with the assistance of Dr. Carl Seiler. In the *Medical Times and Gazette* for December 19, 1874, was published a paper read by Dr. George Johnson before the Royal Medical and Chirurgical Society of London, to demonstrate and explain the theory that bilateral spasm and bilateral paralysis of the larynx may result from the pressure of an aneurism, or other tumor, upon the pneumogastric nerve of one side only. Reference was made to two cases of aneurism, one of the innominata, one of the aorta, which caused bilateral palsy of the larynx during life. After death, however, it was found that the vagus of one side only was involved. In both cases the laryngeal muscles of both sides were paralyzed, and Johnson's theory was that this was due on one side to direct pressure; on the other to reflex action. Dr. Johnson further said that pressure on one recurrent nerve (which is supplied with efferent motor fibres only, originating in the spinal accessory) will cause direct unilateral paralysis of the larynx, but cannot cause bilateral spasm or bilateral palsy. On the other hand, pressure upon the vagus involving its afferent fibres may cause both spasm and palsy of bilateral character. The reason for this bilateral action he considered to be the intimate connection between the nerve-nuclei of the two sides, thus according with the views of Dr. Broadbent. Dr. Lockhart Clarke has demonstrated that three sets of commissural fibres connect the nerve-nuclei of the origin of the spinal accessory, and this fact was also used by Dr. Johnson in support of his theory. At the same meeting Dr. Powell stated that he had obtained like results in the dog, but called attention to the difference which exists in different animals, and added that faradization of one recurrent in the cat produced abduction of both cords. "Dr. John Reid," said Dr. Powell, "produced bilateral spasm in the larynx of the dog, by galvanizing one recurrent." Some years ago Dr. Weir Mitchell discovered a remarkable chiasm in the laryngeal nerves of the turtle, and also experimented upon the cat and rabbit, but without result. He did not examine the dog. These statements of the English physicians, therefore, prompted his proposal that Dr. Keen should aid him in new experiments to determine these assertions in case of the dog. A few days later Dr. Keen was invited to attend the execution of Heidenblut, and thereupon came the idea of making these experiments upon the human body directly after death.

Within thirty minutes after the execution of the criminal, Dr. Keen carefully dissected out the pneumogastric of one side, insulated the nerve by means of strips of pure rubber cloth, and then applied the two wires of the battery directly to the nerve. . Meanwhile Dr. Seiler attempted to watch the action of the larynx in the ordinary manner; but the hyoid bone of the subject had been fractured, thus closing the pharynx. Besides this the throat of the dead man was occluded by a tenacious mucus, so that it was impossible to see the larynx. Dr. Keen therefore made an incision just above the thyroid cartilage, large enough only to admit the mirror, and recommenced the faradization of the nerves. I should remark that the vertebræ were neither fractured nor dislocated. This is the third case of judicial hanging in which Dr. Keen has verified this condition of the spinal column. The sterno-cleido-mastoid muscle of the right side had, however, been completely torn asunder by the pressure of the rope, the sheath being the only bond of union. Both vagi were apparently uninjured, and the recurrent nerves had been untouched by the rope. Upon reapplying the current the vagus responded perfectly, but only one side of the larynx was affected. In spite of a forty cell current and in spite of the afferent fibres which this nerve contains, no other result could be produced. Bilateral action of the vocal cords by galvanization of one recurrent nerve could take place only in case a chiasm existed between the laryngeal nerves (because this nerve contains only efferent motor fibres), and no such chiasm was found: only one nerve responded. Except it be that in this case the nerve centres were injured by the pressure of the rope, thus preventing a transmission of the current from one set of nerve-nuclei to the other, these results would seem to refute the assertions of Dr. Johnson.

Dr. Keen next galvanized the phrenic. The nerve did not respond. He then applied the current to the intercostal muscles and proved most satisfactorily that the internal intercostals are muscles of inspiration and that the external intercostals are muscles of expiration, the former lifting the ribs, the latter depressing them. This manner of testing these muscles, which Dr. Keen was probably the first to attempt, will undoubtedly decide the question as to their real function, touching which there has been so much confusion of opinion. He also tested some of the facial muscles in relation to the part they take in expression, and found that the pyramidalis nasi, as stated by Darwin, is a direct antagonist to the occipito-frontalis.

Dr. Keen read a paper giving the results of his experiments upon Heidenblut, before the College of Physicians on Wednesday evening last. The details wil therefore soon be published. Dr. Keen closed his paper by calling attention to the important results which this new method of investigation, namely faradization of the muscles of the recently dead, promises to yield.

"In the living body it is almost impossible to obtain the action of a single muscle, especially in the face, where the emotions, as pain, amusement, etc., involuntarily arouse the action of other muscles. In the recently dead the results will be far more accurate, and therefore to the anatomist, physiologist, and artist are of the greatest interest and importance." UNGENANNT.

PHILADELPHIA, *February* 5, 1875.

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BOOKS AND PAMPHLETS RECEIVED.

A Practical Treatise on the Medical and Surgical Uses of Electricity. By George M. Beard, A. M., M. D., and A. D. Rockwell, A. M., M. D. Second Edition, Revised, Enlarged, and mostly Rewritten. New York: William Wood & Co. 1875. Pp. 794. (For sale by A. Williams & Co.)

Public Health. Reports and Papers of the American Public Health Association in the Year 1873. New York: Published by Hurd and Houghton. The Riverside Press, Cambridge. 1875. (From the Publishers. For sale by Noyes, Holmes, & Co.)

Transactions of the American Ophthalmological Society. Tenth Annual Meeting, Newport, July, 1874. New York: William Wood & Co.

Compendium of Children's Diseases; a Handbook for Practitioners and Students. By Dr. Johann Steiner. Translated from the Second German Edition by Lawson Tait, F. R. C. S. New York: D. Appleton & Co. 1875. Pp. 408. (For sale by A. Williams & Co.)

Annual Report of the Surgeon-General of the Commonwealth of Massachusetts for the Year ending December 1, 1874.

Report of the Commissioners of Lunacy to the Commonwealth of Massachusetts. 1875.

A Series of American Clinical Lectures. Edited by E. C. Seguin, M. D. Vol. I., No. 1. On the Disease of the Hip-Joint, by Lewis A. Sayre, M. D. New York: G. P. Putnam's Sons. 1875.

Pulmonary Tuberculosis, its Pathology, Nature, Symptoms, Diagnosis, etc. By Addison P. Dutcher, M. D. Philadelphia: J. B. Lippincott & Co. 1875. Pp. 375. (From A. Williams & Co.)

Dental Pathology and Surgery. By S. James A. Salter, M. B., F. R. S., Dental Surgeon to Guy's Hospital. New York: William Wood & Co. 1875. Pp. 399. (From A. Williams & Co.)

On the Treatment of Pleurisy. By John W. Corson, M. D. New York: William Wood & Co. 1874. Pp. 31.

A Handbook of Therapeutics. By Sydney Ringer, M. D. Fourth Edition. New York: William Wood & Co. 1875. Pp. 632. (From A. Williams & Co.)

Neuralgia in and about the Ear. By J. Orne Green, M. D. Reprinted from the Transactions of the American Otological Society. 1874.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending February 20, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

Diseases of the respiratory organs (bronchitis, influenza, pneumonia) are universally prevalent throughout the State.

In addition to the above general statement, the weekly reports furnish information of the local prevalence of certain diseases as follows: —

In Berkshire: croup and diphtheria prevail in and around Pittsfield.

In Worcester County: measles, diphtheria, scarlatina, and whooping-cough. Small-pox continues in the Blackstone Valley, but is not reported elsewhere.

In Middlesex and Essex: measles, rheumatism, scarlatina, and whooping-cough have quite an extensive prevalence.

In the Metropolitan section: measles has increased in prevalence since last week, and "roseola" is reported. Diphtheria and rheumatism have also extended. Scarlatina is less prevalent.

In the Southeastern counties: croup, measles, whooping-cough, and rheumatism are prevalent.

A comparison with the report of last week shows that measles and diphtheria have increased; influenza, bronchitis, pneumonia, and rheumatism remain as before; all other diseases have subsided.

Measles has its field of maximum prevalence in Suffolk, Middlesex, and Essex; scarlatina in Worcester; diphtheria in Berkshire.

F. W. DRAPER, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING FEBRUARY 13, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	594	30
Philadelphia	775,000	361	24
Brooklyn	450,000	240	28
Boston	350,000	197	29
Providence	100,000	48	25
Worcester	50,000	14	15
Lowell	50,000	17	18
Cambridge	44,000	41	48
Fall River	34,200	23	35
Lawrence	33,000	14	22
Springfield	33,000	4	6
Lynn	28,000	23	43
Salem	26,000	10	20

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A CASE OF INTRA-PERITONEAL HÆMATOCELE CURED BY FREE INCISION AND DRAINAGE.

BY JOHN HOMANS, M. D.,
Surgeon to the Carney Hospital and to the Children's Hospital.

MRS. G., of Marlboro', Mass., consulted me on the 23d of April last at the suggestion of Dr. D. H. Hayden; she was thirty-eight years of age, rather thin and pale. Dr. Hayden examined her with me; we found a tumor six or seven inches in diameter in the left hypogastric region, roundish in shape, not tender on pressure, movable beneath the abdominal integuments, quite elastic but not distinctly fluctuating, and descending into the pelvis. The uterus was normal in size and could be moved towards the right but not towards the left; the functions of the bladder were naturally performed. The patient's account of the origin and progress of the tumor was as follows: Seven weeks since, when at stool, she was suddenly attacked with severe pain in the left hypochondriac and iliac regions, and felt (as she expressed it) "a rush as if something fell from beneath her left ribs downwards." With difficulty she walked to her home, about an eighth of a mile distant. (This attack was two weeks after a catamenial period.) On reaching home she felt chilly, and vomited; the pain also increased so that a physician was called in the night. The next day she noticed a tumor in the region above mentioned, the size of an egg, and very tender. Attacks of vomiting continued for four days, and her confinement to bed lasted ten days, at the end of which time the tumor was as large as an orange and still very tender. She got up, and a few days later had another attack of chills and vomiting, from which she recovered and began to gain a little strength.

I decided to puncture the tumor with a perforated needle, and as I was not willing to do this and then send the woman from Boston to Marlboro', I advised her to enter the Carney Hospital. After etherization at the hospital, the needle of an aspirator was thrust into the tumor through the abdominal wall, and about seven ounces of dark reddish-brown fluid were drawn off; another puncture was made into the tumor from the vagina, and a few drops of a similar fluid were obtained. On microscopical examination the fluid was found to contain many vibrios and many blood globules, some normal in shape and others more or l shrunken; the fluid was inodorous.

The diagnosis was now much clearer; we had evidently a tumor deal with of the same character as a retro-uterine hæmatocele; th had been a rupture of a blood-vessel, probably in the broad ligame between the folds of the peritoneum; the progress of the blood dow ward and backward had been limited by the inflammatory acti which occurred during the attacks of chilliness and vomiting, but f some reason the induration had not extended to the peritoneum abo the mass of blood, and this increasing had pushed the upper layer peritoneum before it until it had emerged from the pelvis and reach the size mentioned when the patient was first seen by me. It was e traordinary that the blood had remained fluid during this long period.

I felt sure, from previous experience, that suppuration in the sac wou follow the puncture. Three days later the tumor had increased in si and was very hard; there was also considerable pain and increase of t temperature and pulse. The patient was again etherized, and tapp with a common trocar through the vagina to the left of the os uter about two pints of dark-brown, bloody, offensive fluid ran out. On t evening of the 30th (four days later) the pain had become excess and the tumor had regained its former size. Dr. Hayden assisted n in again etherizing the patient, and I thrust a long trocar into the swe ing from the vagina; the point chosen was about an inch to the left the os uteri; the opening was enlarged with the knife until the fing could be passed within the tumor; about two pints of the same sort fluid was evacuated. A large elastic tube three eighths of an inch diameter was then passed through the opening in the vaginal roof length of three and a half inches, and was left in the pelvic cavity, t outer end of the tube being secured to a bandage around the hips a perinæum. Directions were given to wash out the sac daily with wa water. There was no pain after this operation, and in four days t tube was removed; the discharge gradually became healthy and t induration disappeared. The patient gained in flesh, strength, a appetite, and on the 23d of May returned home.

On the 17th of June I saw her again; the sinus had almost clo and the discharge had become very slight, serous, and inoffensive. S has experienced no further trouble.

ON IRREDUCIBLE HERNIA.[1]

BY W. C. B. FIFIELD, M. D.,
Surgeon to the Boston City Hospital.

On taking my service at the hospital in August last, a larger number of cases of hernia fell both to my colleague, Dr. G. W. Gay, and to myself than had been seen during my services for the four years previous. Some of these cases will serve to illustrate the views heretofore set forth.

Case I. — Jeremiah H., aged seventy years, entered the hospital with a left inguinal hernia. He had had a hernia since 1842, which had frequently come down, but he had always been able to reduce it himself, with one exception. On Thursday, September 10th, whilst coughing violently, the hernia descended. He attempted to return it, but without success. He suffered greatly all that day, and until his admission. He had tried at various times to reduce the rupture, but always unsuccessfully. When he came to the hospital, his pain was not intense; he had neither vomiting nor hiccoughs, but said that he had vomited several times before entrance; he had had no movement of the bowels since the hernia descended.

The patient was of low stature, and very fat. In the left groin was a swelling of enormous size, extending from above Poupart's ligament to the bottom of the scrotum. The skin was neither red nor tender. There was no pain on pressure. The pulse and temperature were normal. At noon, September 14th, Dr. Fifield, after a very short and gentle attempt at taxis, pronounced the case to be a non-strangulated, irreducible hernia. He ordered a bladder filled with ice to be applied to the swelling, separated from it by a fold of flannel; the foot of bedstead to be elevated by the lifts; the patient to have at once a pill of a grain of opium, to be repeated *pro re natâ*. Low diet.

September 15th. The patient has slept well; some pain in hernia on coughing.

September 16th. Tumor reduced in size. There is still some pain on coughing. Ordered one grain of opium, in pill, three times daily. An injection, ordered last night, has not operated well. The patient vomited this morning from coughing.

September 16th. An ounce of castor oil prescribed.

September 18th. The patient has had a great discharge of fæces; is very comfortable, and without pain.

September 19th. Omit pills; one drachm of compound licorice powder to be taken at bedtime.

September 22d. The patient coughs greatly in the night; cough-mixture ordered.

September 28th. This morning the patient without difficulty reduced his hernia, which had been for some days diminishing in size. A truss was applied.

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[1] Concluded from page 149.

October 2d. The patient walked about the ward.

October 5th. Discharged, well.

This case may profitably be contrasted with the following, which entered the hospital on the same day and at about the same hour.

CASE II. — Andrew B., a fisherman, aged forty-four, was brought to the hospital on Monday, September 14, 1874. The patient said that on the Saturday night previous, when two hundred miles at sea, he felt a severe pain in the lower part of his abdomen, and noticed the hernia and tried to put it back, but without success. He slept none that night; he vomited frequently. Sunday morning he applied hot flannels to the rupture. The pain increased, the rupture was red and more swollen; there was constant vomiting. The patient arrived in port at four o'clock this morning.

In the left groin is a large oblique swelling, red, tender to the touch, reaching from the ring to the bottom of the scrotum. Dr. Fifield was sent for, and arrived at about noon. He pronounced it to be probably a strangulated inguinal hernia, and expressed the opinion that an operation would become imperative. He nevertheless decided to wait, as the man was not at this time vomiting, or in very severe pain. He ordered an ice-bladder to be placed over the hernia, one grain of opium to be taken immediately, and to be continued *pro re natâ;* the foot of the bedstead to be raised. He desired to be sent for should vomiting return, and especially if hiccough were present. During the afternoon the patient was very restless; he vomited and had hiccough. Dr. Fifield was sent for at five o'clock. The patient was etherized, and taxis was gently tried for a few minutes only. The hernia was punctured, and Potain's aspirator tried; only blood and serum were withdrawn. An incision was then made and the sac was opened; there was no fluid in the sac. The intestine was much distended; it was dark red in color, with patches of much darker tint, suggestive of approaching gangrene. The intestine was punctured in several places with a small needle; only a little flatus escaped. On pulling down the sac, a tight band of fibre, feeling like a silk thread, was found girting the upper part of the intestine; this was divided with scissors, the finger depressing and protecting the gut. Still the rupture could not be reduced, until it occurred to the operator that in trying to reduce the gut by pressure on the upper fold of it, he was acting under the great disadvantage of forcing against the external ring. He then turned his attention to the lower fold, and the reduction occurred at a touch. According to a theory recently broached it must have been the difference between an afferent and an efferent end of intestine which made that easy which before had been difficult, but the reasoning stated above was that which suggested itself. Although no operation from the bowels was permitted for several days, a copious motion took place spontaneously. And on September 28th the patient was fitted with a truss.

October 8th. Discharged, well.

In these two men there was the difference between symptoms of strangulation and *no* symptoms. The first man could have safely remained any length of time without operation. The hernia was sure to go back if he was left in bed long enough, and his fat reduced by low diet. Herniæ which have been irreducible for years will return if treated in this way.

CASE III. — Patrick O'C., aged seventy, was sent to the hospital September 19, 1874, by Dr. Fifield, who had seen him in consultation. The hernia was of the oblique inguinal variety, and had existed twenty years; the patient had always been able to reduce it until the present time. The swelling was large and reddened; the abdomen was somewhat tender; the patient had vomited; taxis had been faithfully tried by his attending physician.

Dr. Fifield ordered the ice-bag to be applied to the hernia. A grain of opium *pro re natâ* was prescribed; low diet; the foot of the bedstead was elevated. At evening the patient complained of pain in the abdomen; he had neither vomited nor hiccoughed; he passed wind; the rupture had diminished in size.

September 20th. The patient vomited this morning at five o'clock; he had no pain. At his visit, Dr. Fifield tried taxis gently without result; but as he left, a loud grunting of intense satisfaction was heard from the patient, who had reduced his hernia himself.

September 21st. The bowels freely moved.

September 24th. The patient was fitted with a truss, and discharged, well.

Here again, there were *no symptoms* to warrant an herniotomy.

CASE IV. — Adolph B., a printer, with a right inguinal hernia, entered the hospital November 16, 1874. The patient had had hernia for some time, but it had never troubled him until this date, when, at noon, it came down and he was unable to return it. He came from Worcester, arriving at hospital at six o'clock P. M.

The hernia was large, not very tense, exceedingly tender and painful The patient was put in bed, and a grain of opium was given him; he will not keep the ice-bag on; he was seen at ten o'clock P. M. by Dr. Fifield, who ordered large warm poultices to the hernia, the opium pill to be repeated in an hour if need be; bedstead elevated.

November 17th. The hernia has disappeared during the night.

The next case is a very instructive one in many respects.

CASE V. — Bridget C., a washerwoman, aged forty-eight, entered the hospital Monday evening, November 9, 1874. On the Saturday previous, November 7th, the patient was seized with abdominal pain, accompanied with vomiting; Sunday brought no relief; she had had no passage from the bowels for several days; she took half an ounce of castor oil, but vomited it immediately. As she was growing worse, she was sent to the hospital by Dr. McDonald at half past four o'clock. Dr. Fifield was sent for, and found two swellings, one in the right femoral region, one in the left. The one on the right was evidently a hernia, probably intestine; yet it was not strangulated, for it played in and out of the femoral ring with the respiration. The one on the left was larger, harder, tender to touch, dull on percussion, and irreducible. Dr. Fifield did not deem an operation imperative, for the reason that the diagnosis could not be clearly established. The tumor he thought to be either an enlarged gland or a small omental hernia, and insufficient by itself to cause such symptoms as were represented by the patient. He was inclined to believe that they resulted from some gastric or hepatic derangement. He ordered an injection of warm water to remove the fæces from the rectum; after this an injection of a drachm of laudanum in starch.

November 10th. The patient is comfortable; she has had no vomiting, and slept well. The injection of laudanum was ordered repeated morning and night.

November 13th. Plentiful evacuation of bowels; the patient was in some pain this morning, and through the day; she vomited pretty constantly; the tumor in the left groin remained unchanged, except that it was more tender. At six o'clock P. M., Dr. Fifield, who happened to be at the hospital, deemed it advisable to put the patient under ether and cut down to the tumor, and this was accordingly done. No sac or intestine was discoverable; on dividing the tumor it was judged impossible to determine its exact character, since in some parts it resembled gland-tissue, in others omentum. Passing his finger above the tumor, Dr Fifield was enabled to say that a rounded, cord-like continuation of i seemed to pass into the abdomen. The wound was closed, and th patient put to bed.

November 14th. All vomiting has ceased.

The patient remained in the hospital several weeks, but althoug she had constipation and occasional vomitings, they evidently had n connection with any hernia, and she returned home very comfortab indeed.

What was this tumor? Allow me before answering the question quote a case reported by Mr. Stokes, in the *Dublin Quarterly Journ of Medicine and Surgery* for October, 1874: "Jane L., aged thirty-fiv was admitted into Richmond Hospital under my care on April 2 1871, suffering from the usual symptoms of strangulated hernia. Sh stated that three days before her admission she received a kick in th groin, and that it was followed the next day by a tumor which was somewhat larger on admission than when she first observed it. All the symptoms of strangulated hernia were present. There was vomiting and continual retching, constipation, great irritability of the stomach, and abdominal tenderness, and in the situation of the femoral ring there was a painful globular tumor which had all the external appearances of femoral hernia. In truth, at first sight no one would have questioned that such was the nature of the case, especially when the symptoms which accompanied it were considered. The only thing that made us entertain any doubt as to the nature of the case was the history the woman gave, namely, that it came on after the injury she described. As a proof of the extreme difficulty of diagnosis in this case, I may mention that my late eminent colleague, Professor R. W. Smith, universally and justly allowed to be a great master in surgical diagnosis, was of the opinion that it was a strangulated hernia. Accordingly I determined to cut down on the tumor, and, if it proved to be a strangulated hernia, to deal with it in the usual way. I made the usual incisions and in a short time came down on what was neither more nor less than a large glundular tumor in a state of great inflammation. I determined to excise the tumor. This being done without any difficulty, the symptoms of strangulated hernia, strange to say, subsided immediately. The wound healed promptly and in a few days the woman returned home perfectly well. This case," says Mr. Stokes, "must, I think, be considered of great interest and importance, and shows that the symptoms of strangulated hernia may be produced by other conditions unconnected with hernia."

A strange freak of fortune has within a short time put into my hands the body of a woman apparently about twenty-five years of age, who had died of phthisis. After making some experiments on the right femoral region to determine the exact points of stricture in femoral hernia, I rather idly set about making a formal dissection of the left, intending to display all the points of the finer anatomy. To my very great surprise I found a round, semi-solid tumor occupying the crural ring, passing just beyond the falciform border of the iliac fascia, and just a little pressed by it. Opening the abdomen I found a long slender rope of omentum passing out of the crural ring, and having a complete sac, forming beyond the ring the tumor I had found. The rope of omentum had within the cavity of the peritoneum so pulled on the transverse colon that the latter had descended towards it, allowing plenty of slack to the rope. The pulling of the rope had caused the colon so to change its position that the transverse colon lay at or about the level of the umbilicus; the descending colon had sagged over towards the right, concealing the rope, which appeared to pass behind it. When this was brought up into position it was seen that the rope of omentum made a straight descent from the arch of the colon to the crural ring. Cutting upon the tumor (which was of the size of an American shagbark, or a very small English walnut), the omentum was seen to be perfectly adherent to the sac except at its lower part, where a little cavity existed. So adherent was it that a very tedious bit of work must have been done with a director to have cleared the connection. Before I cut into it the sac had a white color and resembled fascia. The sac could easily be dissected up from its bed on the pubic portion of the fascia lata. The saphenous vein was pushed outward. Internally the omentum showed no signs of compression, its blood-vessels appearing clear and distinct. Under the sac lay a small lymphatic gland. In a case like this in life, I hold that it would have been well-nigh impossible to have recognized whether one had to deal with a hernia or a gland. During life I do not think that the existence of a sac could have been detected, whilst a little blood-staining would have prevented any one, however skilled or experienced, from recognizing the appearances of omentum. If a gland should *overlie* the hernia instead of *underlying* it, as in this case, we should have a double chance of error, by confounding an omental hernia with an inflamed painful gland, as the cut would have showed the texture of gland as well as that of omentum. I believe that this post-mortem case was the double of the one given above as occurring to myself. From the adherence of the sac to the hernia it would obviously have been impossible to reduce the hernia without reducing it *en masse*. Now this could have been easily done after dividing the edge of the fascia. The case also shows the danger of cutting off such a gland or omentum, for we have only to suppose the sac non-adherent, and we shall have an open hole leading directly to the cavity of the peritoneum. Again, in a hernia of this sort, it was easy to see how an intestinal hernia could lie behind this mass of omentum, or above or within it, and suffer constriction without its being discoverable at operation. Nay, one might even have returned it *en bloc* without having opened the sac, because such sac was adherent to the omental mass. Two rules of practice may be deduced from these statements, namely, first, not to cut off doubtful masses which seem glandular or omental, yet cannot be certainly determined to belong to either class; and secondly, to carefully divide such masses lest they lodge intestine, and to reduce them only after the highest point has been searched for such enterocele.

The following case was probably one of omental hernia with intestine within or above it, probably the latter.

CASE VI. — Mary C., aged sixty-five, was admitted to the Boston City Hospital September 28, 1874. Five days previously, whilst visiting at Dorchester, she was taken with severe diarrhœa and vomiting; the latter had continued to the time of her admission. The diarrhœa suddenly ceased on September 25th. The patient had severe pain in the lower part of the abdomen at the same time. On this day (the 25th) she noticed a swelling in the right groin, red and tender to the touch. She was first seen on September 27th by a physician, who attempted taxis twice, but unsuccessfully; he was positive that he felt gurgling. The patient had had no stool since the diarrhœa ceased; laxative injections had been given in vain. The night before her entrance to the hospital a starch and laudanum injection was given, and after this she did not have so much pain.

September 28th. The patient came to hospital at about eleven o'clock A. M. Dr. Fifield, being at the hospital, saw her at once. On examination, a small round tumor was discovered, three inches wide, below Poupart's ligament, red and tense, painful on pressure. Taxis was gently tried, but without success. Dr. Fifield then cut down on the tumor, opened a sac from which no fluid escaped, but exposed omentum of a reddish color, and only slightly congested. A band of fibres being divided, and the patient's knee flexed, the tumor disappeared almost immediately. Evening. The patient has had severe pain in groin since the operation. She vomits frequently; retains no food or drinks. Two grains of calomel were given on the tongue every two hours. The face was pinched and dull. Half an ounce of champagne was given every hour.

September 29th. The patient still vomits; to have a pill of calomel and opium every sixth hour. Pulse 114, irregular.

September 30th. Patient has slept at intervals. She has pain in the stomach, with rumbling of gas in bowels; passes no wind or fæces. Fæcal matter being felt in the rectum an injection of warm sweet oil was ordered to be given, followed by a pint of warm water, through a long rectal tube. No movement of bowels.

October 1st. Still no movement of bowels. Medicines continued.

October 2d. Two operations from bowels. No vomiting. Wound discharges freely of oily matter. Patient has no pain. May have an ounce of champagne three times daily. Diet, chicken-broth, milk, and lime-water.

October 3d. Patient unable to sleep during night from pain in groin; has had several loose discharges. Wound now discharges freely of yellow matter, like fæces, and gas. Evening. Patient slept the greater part of the afternoon after taking one grain of opium; she had four loose dejections from bowels; she takes food freely; there is no vomiting; there is some pain about incision, but none in abdomen. Wound still discharges greenish-yellow stringy matter, thought to be the sloughing omentum.

October 4th. Patient slept well; she had no operation from the bowels.

October 5th. The opening in groin discharged enormously; the bed is soaked with this yellow, chyme-like matter, which escapes below dressings.

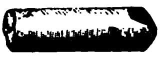
October 6th. The patient spent a miserable night; the bed and clothing are covered with discharge; no passage from the bowels; odor from wound horrible; bubbles of gas constantly arise from wound, which appears to be sloughing. This afternoon her friends removed her from hospital contrary to advice, and we learned that she soon after died. I now regret that when the symptoms of strangulation persisted I did not cut down from above Poupart's ligament and search for constricted intestine there.

A CASE OF FOREIGN BODY IN THE BRONCHUS.

BY T. WOOLVERTON, M. D., SURG. U. S. N.

THOMAS N., aged fifty-seven, quartermaster of the U. S. S. Ohio, stationed at Boston, a broken old man, fell from his hammock to the deck, a distance of five feet, on the evening of January 11, 1875, while drunk, sustaining a severe contusion of the left shoulder and scapular region.

On the afternoon of January 15th, he ejected, before the apothecary of the ship, during a paroxysm of violent suffocative cough, a piece of ordinary clay pipe-stem three fourths of an inch long, with about a drachm of florid, unmixed blood. The presence of a foreign body in the bronchus had not been suspected. Upon inquiry it was learned from one of the man's shipmates, who had witnessed the accident, that he had had a pipe in his mouth at the time; it was picked up on deck the next morning.



Immediately after his fall the patient had difficulty of breathing for fifteen or twenty minutes, and although very drunk he screamed with pain and put his hand over his sternum. This passed, however, and he remained quiet, and, except for pain and tenderness about the shoulder, he continued comfortable through the 12th and 13th. Respiration 38; pulse 90.

January 14th. The patient complained of cough which "hurt" him, and of tenderness about the inferior angle of the scapula. Upon getting him up to examine the shoulder and chest, he had a fit of strangling cough. Auscultation discovered mucous râles over the left side, but the respiration was free throughout; pulse 80.

January 15th. The patient had several coughing fits during the morning, and at half past two o'clock P. M., in an unusually violent one, he coughed up the fragment.

He had afterwards, for three or four days, slight bronchitis with expectoration, at first tinged with blood; but January 20th he was well, except the contusion. At no time was there dyspnœa, nor was there evidence by auscultation of impeded respiration.

RECENT PROGRESS IN ANATOMY.

BY THOMAS DWIGHT, JR., M.D.

HISTOLOGY.

Coloring Agents. — Were the object of coloring a microscopical preparation merely to render the different elements more distinct, or even were it to enable us to form some judgment as to the degree of vitality of certain parts of cells and fibres, we should not need to chronicle the introduction of new agents; but as the real desideratum is something that by its action will enable us to determine the nature of such bodies as it does or does not color, we welcome every addition to our slight knowledge in this respect.

Of all forms of tissue the connective is the most perplexing, owing to its universal distribution, and to its intimate relations with other tissues from which it frequently can hardly be distinguished, if at all.

Ranvier[1] claims to have found a coloring matter called purpurine which will be of great use in this respect. It is particularly applicable to the study of the central nervous system, from its property of coloring the nuclei of connective tissue cells and of leaving nervous elements unstained. To obtain this effect the cord should be hardened in bichromate of ammonia. The nuclei of cartilage cells, corneal corpuscles, and fixed cells of connective tissue in general are admirably shown. The substance is an extract of madder, and the fluid is made by adding it to a boiling solution of one part of alum and two hundred of water until some of the extract remains undissolved. The fluid is filtered while still hot into enough alcohol to form one quarter of the mixture. Only a small amount should be prepared at a time, as precipitation occurs in about a month, after which the staining properties are less active.

The color is a fine orange-red. From twenty-four to forty-eight hours are required for staining; most preparations are then mounted in glycerine, but sections of the cord are freed from water and rendered transparent *secundem artem*, and mounted in a solution of Canada balsam in chloroform.

Alferow[2] advocates the use of the lactate of silver instead of the nitrate. He recommends a solution of one part in eight hundred of distilled water, with the addition of a few drops of a concentrated solution of lactic acid. The presence of the free acid renders precipitation less easy, and the only formations that occur are the chloride and albuminate of silver. The formation of several disturbing precipitates is thus avoided. Alferow claims that the pictures are much clearer than those obtained by the nitrate, and that the lactate if applied to the mesentery of the living frog interferes less with the circulation. We may mention incidentally that this author denies the existence of stomata in blood-vessels and serous membranes, and states that solid particles traverse epithelial layers between the cells, which move to give them passage by some mechanism not yet understood.

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[1] Archives de Physiologie, No. 6, 1874.

[2] Archives de Physiologie, Nos. 4 and 5, 1874.

Gerlach, in an excellent monograph on the relations of nerve and voluntary muscular fibre in vertebrates, which we shall notice further on, gives some valuable directions for the use of silver, osmic acid, and gold. It is to be remembered that his directions apply only to this special branch of study. In speaking of silver he dwells on the fact (which is more or less true of all coloring matters) that its action is very different on living and on dead tissues. With muscles this is particularly important, as the acid reaction due to contraction interferes with the effect of the silver. He uses silver as follows: a little muscle is picked to pieces in a half of one per cent. solution of salt in water, and allowed to remain in this fluid eight or ten minutes, after which it is washed in distilled water, and transferred to the tenth of one per cent. solution of the nitrate of silver, to remain till it assumes a dull white color, which usually appears in about half a minute. The muscle is then again washed, and exposed in a moist chamber to direct sunlight if possible for five or ten minutes, or to diffused light for four times as long. It is then treated for three or four minutes with a mixture of one part of hydrochloric acid and one thousand of water. Silver, though having for the most part a purely superficial action, shows a series of white markings in the substance of the muscular fibre itself, which Gerlach is inclined to consider lymph spaces.

Osmic acid has a peculiar affinity for the white substance of the nerve fibre; no coagulation takes place, but the whole fibre appears as a black band. For tracing the general distribution of nerve fibres this agent is very serviceable. There are several methods of using it, but the following is the simplest and most generally applicable. Put the specimen for from four to eight minutes in a half of one per cent. solution of the acid, then wash it and mount it in a saturated solution of acetate of potash. Glycerine is not to be recommended.

For the finer nervous filaments gold is superior to anything else. Gerlach, in place of the simple salt, uses the chloride of gold and potassium dissolved in ten thousand parts of water with one part of chemically pure hydrochloric acid added to the solution. It is im-

ant to know that the action on muscles is modified by the length of
after death, and by the state of the muscle before death. The
results are obtained with muscle that is not perfectly fresh, but
h is used before the development of cadaveric rigidity. For
frog the best time is from six to nine hours after death; in
m-blooded animals the examination must be made sooner. It seems
desirable that just before death the muscle should have been in a
of tetanic contraction. In the frog this is brought about by kill-
the animal by repeated blows on the head. Beale's more humane
hod of wrapping the frog tightly in a towel and dashing it to the
nd would doubtless be equally advantageous. The extremity from
h the muscle is to be taken should be separated at once. The
imen is kept ten or twelve hours in the gold solution protected
the light. It is then washed in slightly acidulated water and
nted in glycerine, to which a little hydrochloric acid has been
ed.

hiefferdecker[1] describes some very beautiful sections that he had
le of the cord of a dog and stained with chloride of gold or chloride
alladium. The former of these is particularly good for showing the
work of minute fibres, while the latter shows the course of the larger
s very finely. The fresh cord, stripped of its membranes, was hard-
d by being kept for a month in Müller's fluid, and then for twenty-
hours in alcohol. The sections were washed for a day or two
listilled water. The solution of palladium was of the strength of
to ten thousand; that of gold, sometimes the same, sometimes twice
trong. The specimen was kept in the palladium till it became of a
color, which occurred in from three to five hours; it was then
hed in distilled water. Those specimens treated with gold were
in till they became of a light violet, which took place in from
to three hours; they were then kept for a day in acidulated
r. The specimens of both kinds were finally mounted in Canada
am, after the regular course of alcohol and oil of cloves.

anvier[2] recommends weak alcohol as a substitute for chromic acid,
ller's fluid, and other hardening agents. He adds twice its volume
ater to alcohol of 36° of Cartier's scale, that is, of about ninety per
t. This fluid renders the cells rather hard, the nuclei very plain,
at the same time dissolves the intercellular substance; hence it is
y useful in the study of individual elements. It further has the
it of not interfering with the action of coloring agents.

onnective Tissue Cells. — Waldeyer[3] is the latest writer on the vexed
stion of these cells. About six years ago Ranvier revolutionized our

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[1] Archiv für mikroskopische Anatomie, band x., heft 4, 1874.

[2] Archives de Physiologie, No. 6, 1874.

[3] Archiv für mikroskopische Anatomie, band xi., heft 1.

ideas of connective tissue by his work on the structure of tendons ; opinions as to the structure and classification of cells are still very verse. Putting wandering cells out of the question, Waldeyer descri two chief classes of connective tissue cells, each of which includes course, many varieties. The first kind embraces Ranvier's tendon c many of those of loose connective tissue, and the corneal corpusc Ranvier looks upon the cells named after him as plates more or rolled up ; but Waldeyer holds that they consist of several plates, largest of which contains the nucleus and supports the others that radi from it like the leaves of an open book. Several years ago Boll scribed a line in Ranvier's tendon cells which he called the "ela stripe," and which, though generally attributed to some optical de tion, has never been accounted for. Waldeyer believes that it depe on the position of the cell being such as to present the edge of one the secondary plates to the eye of the observer.

The other kind of cell described by this writer is already pretty known. It is simply a large granular cell with a well-marked gran nucleus, and rarely showing amœboid movements.

Histology of the Joints.[1] — Our knowledge of the pathology of the jo is not very satisfactory and will hardly become so till more is known their minute anatomy and physiology. We are inclined to think paper a valuable contribution, though it must be very incomplete another appears containing the author's researches concerning the l phatic system, which he has not yet finished. He discusses first the dothelial lining, concerning the extent of which there has been m dispute. The author shows why nitrate of silver, usually so useful detecting epithelium, is here not to be relied on. He represents tissues inside a joint as in a state of great activity almost analogous inflammation. New cells are constantly forming, old ones being thr off to macerate in the synovia and apparently at last be absorbed. both the action of the fluid and the presence of the masses of dead interfere with the nitrate of silver and occasion very deceptive app ances. By means of Müller's fluid or the half per cent. salt solution author has succeeded in removing a continuous layer of endotheli lining the capsule, from under irregular masses of cast-off cells. holds that this lines the capsule and the intra-articular ligaments, is to be found only in spots on the cartilage ; and it is to be noticed these spots are parts not subjected to much rubbing or pressure. some places more than one layer is to be seen. The inside of the don of the quadriceps extensor was sometimes found destitute of a cell lining, and presented the further anomaly of cells very like those of tilage lying on the inner side of the tendon. The author throws out suggestion that these may have come from epithelial cells. The marks on the structure of the capsule contain little new ; from what has already been said it is evident that an endothelial layer always separates the capillaries from the cavity of the joint. Tillmanns divides the synovial folds or fringes into two classes: the true and the false. The true are covered with one or more layers of endothelium ; they for the most part contain vessels, and are the scene of constant changes. They may be subdivided according to the tissue they contain into fibrous, mucous, and fatty. The false folds come from the cartilage ; those near its edge may contain vessels and be covered with endothelium, but the others have neither.

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[1] Dr. Tillmanns. Archiv für mikroskopische Anatomie, band ix., heft 4.

The Termination of Nerves in Muscle.[1] — Gerlach, after a very interesting historical sketch and a detailed account of his methods, gives the conclusions to which he has come as to the ending of nerves in the voluntary muscles of vertebrates. He thinks the views concerning end plates entirely erroneous. The nerve enters the sarcolemma and subdividing is spread out as a network of most minute filaments throughout the whole substance of the fibre. Small nuclei, very much smaller than muscle corpuscles, are found in connection with the branches of the nerve. Gold often gives the muscle the appearance of being filled with minute black dots and lines very like the finest nervous fibrillæ, which seem to consist of lines of dots in apposition. It is certain that gold affects the two elements in precisely the same way, and Gerlach thinks he has seen them in communication one with another. He quotes with approval Kleinenberg's brilliant generalization that "muscles are the contractile terminal expansions of nerves."

(To be concluded.)

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PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

JAMES R. CHADWICK, M. D., SECRETARY.

JANUARY 30, 1875. DR. H. W. WILLIAMS, Vice-President, in the chair.

Entrance of Rain-Water Conductors into Sewers. — The secretary of the section of medical pathology, clinical medicine, and hygiene reported that a quorum had not been present at the meeting of the section called to consider this subject, and that consequently no action had been taken. The preamble and resolution presented by Dr. A. P. Richardson, which were referred back to this section at the last meeting, were as follows : —

Whereas, We believe that pure air is essential, not only for comfort and health but even for the protection of life itself, and that opening the drains for the reception of water-spouts from our dwellings will allow the escape of noxious gases, which, when diffused, will poison the atmosphere and make it unfit to breathe, causing blood-poison, exciting serious and unmanageable diseases, and increasing our death-rates;

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[1] Der Verhältniss der Nerven zu den willkürlichen Muskeln des Wirbelthiere. Professor Gerlach Leipzig. 1874. Pages 66.

Therefore, Resolved, That, as physicians of Boston and Fellows of the Suffolk District Medical Society, in behalf of ourselves, our families, our patients, and the community at large, we most decidedly remonstrate against this measure.

DR. H. I. BOWDITCH called upon MR. EDWARD S. PHILBRICK, civil engineer who was present by invitation, to give his views as an expert upon the liability to the escape of noxious gases from the city sewers. This gentleman stated that he had been studying these matters for many years, and had recently been on a commission to devise a plan for the sewerage of one of our suburban towns. Sewers must not be too large, must have the proper inclination, and must be flushed. There is an exaggerated opinion as to the amount of gases that forms in the sewers; this is especially true of Boston, where the rain-fall is great, and where the sewers are generally well scoured. Under ordinary circumstances there is very little accumulation of gas. The amount of noxious gas depends largely upon the quantity of solid refuse which, lodging in the sewers, evolves the gases in its decomposition. The sewers may, however, be tide-locked, and then the air in them may suffer compression, and be driven back into our houses; this most commonly happens when the rain from a heavy shower suddenly fills the sewers, and the doors are at the same time closed by a high tide. To prevent the gases, thus forced back, from invading our houses through the water-closets and other drain-pipes, the sewers must be ventilated. This i most efficiently done by connecting the main sewers with the tall chimneys o manufactories, whereby not only will a vent be provided for the gases, bu these will be literally sucked out by the great draught in the chimneys. The is no provision made in this city for the ventilation of the sewers except throu the rain-water spouts. The opening of these spouts into the sewers wou certainly allow the noxious vapors to escape, except at the time of a gr rain-fall, when ventilation would be most needed; their action is therefore always reliable. Sewers in some cities ventilate through the man-holes in streets; a very offensive odor is then perceptible in the neighborhood. other cities the gutter-holes are not trapped, and results similar to those al mentioned are obtained. The reason that gases enter the houses so readi that the water-closet drains often have no traps, except under the seats. W outside traps exist, the air-column, even in the private soil-pipe itself, may be subject to compression, owing to the introduction of water from bath etc., so that the gas imprisoned between the traps would be forced into the On the other hand, this same air-column is often subject to tension, whe partial vacuum is created after the exit of water, and the upper traps are dry and the house is thus exposed. The air in the soil-pipes and private is often much more foul than in the sewers themselves. There is remedy for the evil, except ventilation of every outside trap and soil-connect it with the normal atmospheric pressure; this is a certain an ual means. The English devices are not always adapted to our climat

The manner in which traps are ventilated by pipes running up th of houses was then demonstrated by diagrams upon the blackboard.

In reply to DR. A. P. RICHARDSON, MR. PHILBRICK stated that special ventilating chimneys, unless fired, would not clean the sewers of gases, but would only relieve the pressure in the immediate vicinity. In Boston we have more than fifty separate outlets of sewers, to ventilate which an equal number of tall chimneys would be required. The question of ventilating the private drains was of the most vital importance, and was but imperfectly understood by plumbers and builders. The amount of poison entering our dwellings from such defects is certainly tenfold that which can ever come from opening rain spouts into street sewers.

DR. RICHARDSON asked if from twenty to thirty thousand holes in the sewers would not be injurious to the health of the citizens.

MR. PHILBRICK thought not, among warehouses and manufactories, where most of the work was done in the lower stories, but that it would be so in dwelling-houses having windows for lodging-rooms over the eaves.

DR. B. J. JEFFRIES suggested that the pressure in the sewers of Boston must be greater than it was some years ago. In his father's house, at No. 15 Chestnut Street, there had never been noxious gases until recently, when it had been found necessary to tap the top of the soil-pipe, and carry the ventilating shaft through the roof. In the Benedict Chambers in Spruce Street there are five water-closets one above the other. The plumbing in this building, Dr. Jeffries said, was perfect, but whenever water was poured down the slop-hopper in the attic, the water was sucked down from the five water-closets, and thus a way opened for the escape of gases into the rooms. This was corrected finally by breaking directly through the wall of the house, and introducing a lead pipe into the main waste pipe above the fifth water-closet.

DR. H. I. BOWDITCH expressed the sentiment of all the Fellows present in thanking Dr. A. P. Richardson for having brought the subject before the society for discussion; in view, however, of the diversity of opinions held, it was evident that the matter was still *sub judice*, and he would therefore move that the whole matter be indefinitely postponed. This motion was carried.

Qualifications for Fellowship of District Societies. — The committee, consisting of Drs. J. R. Chadwick, J. J. Putnam, and H. Tuck, appointed to consider what measures, if any, the society will take to protect its interests with relation to the requisites for fellowship of the district societies, offered the following preambles and resolution : —

Whereas, Article XII. of the By-Laws and Digest XII. of the Acts of the Commonwealth specify that a district medical society shall " consist of all the Fellows of the State Society *residing* within the district and none other ; "

Whereas, Either a literal or a legal definition of the term " reside," in the above places, would operate very prejudicially to the interests of this district society in excluding from fellowship certain Fellows of the State Society who practice medicine exclusively or mainly in this district, but prefer from one motive or another to reside within a different district, whereby this district loses several representatives on the board of council ;

Whereas, The signification of the term " reside " was equivalent to that of " practise " when the By-Laws were framed, because the custom of having an office for consultation away from the dwelling-house was then unknown ; and inasmuch as the By-Laws consider us only in our professional relations, it seems evident that no qualification for fellowship of a district society was intended to be established except upon a strictly professional basis;

Therefore, Resolved, That the Suffolk District Society shall appeal, through its president, to the Councillors of the Massachusetts Medical Society, at their next meeting, for such a definition of the term "reside," as it occurs in Article XII. of the By-Laws and Digest XII. of the Acts, as shall in their judgment be just and equitable to all district societies.

The resolutions were adopted.

Ovariotomy. — DR. CHADWICK reported a case of successful ovariotomy, which will be published in full.

The Death-Rate of Boston and its Suburbs. — DR. M. B. LEONARD read the results of some very thorough investigations into the mortality of East Boston, by which the high rate at certain seasons was traced to contamination of the Mystic water. The paper appeared in the last issue of the JOURNAL.

A Caution concerning Ether. — DR. H. I. BOWDITCH wished to utter a caution against administering ether for the purpose of making a permanent opening in the chest. A patient upon whom he had operated that day had suddenly turned livid when the pleura between the ninth and tenth ribs was reached, and he was with extreme difficulty resuscitated. Dr. Bowditch had now seen dangerous symptoms in four cases, and in one instance death had resulted.

A NEW UNIVERSITY.

ONE would hardly be expected to rejoice greatly over an addition to the already pretty long list of institutions of learning bearing the title of universities which are scattered over the country; but if accounts be true our countrymen have every reason to be grateful to the late Johns Hopkins, whose munificent bequest has put it in the power of Baltimore to found a university on a scale such as has not hitherto been attempted in this country.

According to the *Philadelphia Medical Times*, Mr. Hopkins has left $3,500,000 for the endowment of a university, and a similar sum for the foundation of a hospital in connection with it. Most fortunately this large fund is in the hands of men who apparently appreciate the responsibility of the trust and the needs of the hour. Realizing the necessity in this country of a higher standard of education than most of our universities possess, they have consulted with an expert whose advice was that these funds should be employed to promote "scholarship of the first order, and this by only offering the kind of instruction to advanced students which other universities offer in their post-graduate courses, and leaving the kind of work now done by under-graduates to be done elsewhere. For this purpose he would select as professors men now standing in the front rank in their own fields; he would pay them well enough to leave them at their ease as regards the commoner and coarser cares; he would give them only students who were far enough advanced to keep them constantly stimulated to the highest point; and he would exact from them yearly proof of the diligent and fruitful cultivation of their specialties by compelling them to print somewhere the results of their researches."

The character of the instruction given by most of our universities, although it may be excellent so far as it goes, leaves untouched a wide field in the higher departments of education which it has been thought necessary hitherto to include in the college course. To furnish an education of a tolerable degree of excellence and of a good practical character is about all that has been demanded of any American university. We have been content to leave the scientific work to the schools of the Old World; and those whose tastes and abilities lead them beyond the well-trodden paths of study receive little encouragement from those who have charge of the education of American youth. This is particularly true of medicine. A seat of learning which will not only undertake to give a good medical education, but will also make it possible for our best men to devote their lives to teaching and scientific work will be surely a novelty with us, and will, we doubt not, be highly appreciated by the American medical profession. We earnestly hope that the good intentions of the [illegible] may be most satisfactorily carried out.

SCHOOL AGE AND SCHOOL HOURS.

Any child who is five years old may enter the lowest or primary schools of Boston. The limit of age was formerly lower. The school board are asked to fix it hereafter at six years. It is further requested that from this date children under nine years shall have only three hours of daily school work, divided into two equal parts by a recess of thirty minutes. There would then be but one session each day for scholars of this age, beginning at nine o'clock and ending at half past twelve. These proposals will be discussed at a public hearing in the City Hall on Wednesday, the 10th of March, at four o'clock.

The abstract question whether children of four years, or of three, are too young to be taught is not under consideration; it is only asked whether those less than six years old can well undertake the work of such schools as we now have. It is understood that the committee in charge greatly desire medical testimony as to the value and importance of these changes. Are there not members of the medical profession who will take the trouble to attend this hearing, and to give these gentlemen the benefit of their opinions and experience?

It is evident that the plan described must meet a great deal of earnest and honest resistance. Teachers who find the hours now allotted scant enough will hardly admit that equally good results can be obtained with less time. A minority of thoughtful parents may see, as many already do, the wisdom of keeping children out of school till six years, but a far larger number will regret the not being able to put boys and girls of five years safely out of harm's way.

We venture to predict that, if these changes be made, the intellectual results at nine years will be better than the present plan gives. Our Swiss republicans admit children to the lowest schools at six years; keep t those schools till nine years; make the hours of study in each week e for the first year, and nineteen hours and twenty subsequently. In Nor many school begins at seven years. To children of this tender age it no slight gain to go in the inclement months only once to school an Fortunately the plan involves no new outlay of money, but ought on t trary to prove a real economy.

◆

MEDICAL CERTIFICATES OF DEATH.

WE have been favored, through the courtesy of Mr. Ernest Hart, o don, with a copy of the certificate-blank now used in Great Britain un Registration Act of 1874. Inasmuch as this form of certificate represe fruit of an extended experience in such matters, and as it exhibits ma ures in striking contrast with the formula generally used by American cians in certifying the causes of death, we think our readers will be glad a fac-simile of the English blank: —

BIRTHS AND DEATHS REGISTRATION ACT, 1874.

MEDICAL CERTIFICATE of the CAUSE of DEATH.

[To be given by the Medical Attendant to the Person whose duty it is to give Information of the De Registrar.]

I HEREBY CERTIFY *that I attended* ______________________
whose age was stated to be __________ *; that I last saw h* ____ *on the* ______
______________ 18____ *; that he Died* * ______________ *on the* ______
______________ 18____ *, at* ______________________ *; and th*
best of my knowledge and belief the Cause of h ____ *death was as hereunder wr*

* Should the Medical Attendant not feel justified in taking upon himself the responsibility of certifying the *fact* of Death, he may here insert the words "*as I am informed.*"

† The duration of each form of Disease or Symptom is reckoned from its commencement until death occurs.

Cause of Death.	Duration of Disease.		
	Years.	Months.	Days.
(*a*) Primary ______			
(*b*) Secondary ______			
(*c*) .... ______			

Witness my hand, this ______ *day of* ______________ 18____.
Signature ______________
Registered Qualification ______________
Residence ______________

N. B.—THIS CERTIFICATE IS INTENDED SOLELY FOR THE USE OF THE REGIS whom it should be delivered by the Person giving information to him of the particulars required by registered concerning the Death. *Penalty of £2 for neglect of Informant to deliver this Certificate trar.*

⁎ The Registrar General *cautions all persons* against *accepting* or *using* this certificate for a whatever except that of delivering it to the Registrar.

Upon the back of the blank are printed extracts from the Registration Act giving specific directions, for the information of the medical practitioner, concerning the certificate and its proper disposal. Each of the blanks has a counterfoil upon which the physician may record, for his own use, the facts to which he certifies. A number of the blanks are bound together in a book, and are supplied in that shape to the registered practitioners of the kingdom.

An examination of the above fac-simile will discover the fact that certain features which have proved objectionable to many in the certificate ordinarily in use in this country have been avoided. The medical practitioner in Massachusetts is called on to certify that the person designated died on the specified day, at an age which is defined in years, months, and days; then, as if it were an afterthought, and not necessarily essential to the certificate, is a blank space by itself for the "cause of death." The British way, although more clumsy, is less open to criticism; for by that the attendant is not made to certify concerning facts of which he may have no positive knowledge. For example, the certifier may be spared the responsibility of asserting the *fact* of death in a given case — a saving clause may be used; so, again, the cause of death is written as according to the best of the attendant's knowledge and belief.

We observe that certificates are accepted, under the new British law, from registered physicians only; how the deaths which occur under the charge of irregular practitioners, medical assistants, midwives, and so on are accounted for, is not apparent.

On the whole, we find very much to commend in the English form; although it is somewhat more complicated than the one to which we are accustomed, it will obviously fulfill the object of obtaining just the facts desired for registration without compelling the medical attendant to certify falsely or ignorantly.

◆

SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

OPERATIONS were performed under ether in the following cases during the two weeks ending February 20: —

1. Vesico-vaginal fistula. 2. Dislocation of shoulder. 3. Abscess (7 cases). 4. Stricture of rectum. 5. Phimosis. 6. Fistula in ano (2 cases). 7. Abscess of mastoid cells. 8. Dislocation of shoulder (3 weeks' duration). 9. Cancerous tumors of thigh and groin. 10. Hæmatocele of tunica vaginalis. 11. Dislocation of elbow. 12. Stricture of urethra. 13. Vascular urethral tumor. 14. Strangulated femoral hernia (twenty-four hours' duration; reduced by taxis). 15. Stone in the bladder. 16. Ovariotomy. 17. Club foot. 18. Cancer of lip. 19. Hydrocele (2 cases). 20. Felon (2 cases). 21. Hæmorrhoids. 22. Epithelial growth on foot. 23. Condylomata. 24. Necrosis of humerus. 25. Foreign body in pharynx (fish-bone). 26. Painful cicatrix of hand, from old injury. 27. Ingrowing toe-nail (2 cases).

4. *Stricture of Rectum.* — The patient was a middle-aged man with a history of specific disease; he entered the hospital with a stricture near the external sphincter admitting the little finger. This was dilated with a valved speculum

until it admitted the largest-sized bougie; the patient was directed to contin the use of bougies for several months.

7. *Abscess of Mastoid Cells.* — The patient, a male adult, had suffered for tw weeks from pain in the ear with purulent discharge. Four days before e trance a swelling accompanied with pain appeared on the mastoid proce Dr. Cabot cut down upon and trephined the latter; on the removal of t disk of bone, pus flowed freely.

10. *Hæmatocele of Tunica Vaginalis.* — A man forty years of age ceived, fifteen years ago, a violent blow upon the testicle, followed by inflamm tory swelling which did not wholly subside. Within three years the mass h rapidly enlarged until it had attained the present size, being now seven or eig inches in diameter, of an oval shape, and actively inflamed upon its anterior pect; the whole being suggestive of malignant disease approaching the surfa The enlargement was accompanied with pain. Dr. Cabot incised the ma which proved to contain at its centre an old coagulum surrounded by walls seve inches thick, in which the testicle was embedded. The whole mass was excis

13. *Vascular Urethral Tumor.* — A woman thirty-five years of age had s fered exquisite pain in micturition during the last five years. On examinati a not unusual vascular tumor was found at the mouth of the urethra, lobulat red, with pediculated attachments, and bleeding when touched. The pati said that it had been excised a year or two before; it was now again excis and the remaining wound cauterized by Dr. Bigelow. This was a p nounced case of the ordinary painful vascular tumor at the mouth of female urethra. Dr. Blodgett, after a careful examination, had found the mass consisted of the ordinary material of exuberant granulations o Their excessive sensibility is probably due to the inflamed and irritable dition of the surface bathed by urine rather than to any special nervous str ure. The reporter has observed a similar exquisite sensibility in a small ra berry-like excrescence of a year's duration just within the male urethra, wh a number of common venereal warts were seated upon the gland. After ineffectual application of nitrate of silver, it yielded to chromic acid.

15. *Stone in the Bladder.* — A little boy, five years old, had entered hospital for alleged phimosis; placed under ether upon the operating table, was discovered that the prepuce could be easily retracted. Its elongatio together with a urinary incontinence, then first mentioned, led to a suspicion stone, which was readily detected by sounding, and removed by the later method. It proved to be of unusual size for a child so young, weighing f hundred and sixty-six grains. It lay at the fundus of the bladder, which firm grasped its upper half, so that while the exposed half of the stone presented usual appearance, the upper half was covered with minute and slender aspe ties, which seemed to be casts of the interstices of a granulated mucous me brane. While the lower half was rounded, the upper half was abruptly be eled to an acute edge. In withdrawing the stone, the adherent fundus of bladder followed it into the incision like an inverted hat-lining, and was ca fully pushed back. Dr. Bigelow said that lithotomy was a simple operatio the following points were observed: First, a free external incision; seco dilatation, when necessary, of the vesical incision by the forefingers placed b

third, the point of the knife never to be removed from the staff, when
ce reached it behind the bulb, until it has been carried into the blad-
it be removed when the incision is half made, it is impossible again to
same aperture; fourth, after the incision is made something should be
tly kept in the bladder until the stone is finally extracted, in order that
ge may not be missed and the walls lacerated by futile attempts to find
Thus, in a common operation, the staff remains in the bladder, while
e, the finger or sound, and possibly the forceps, successively replace
er. If the forceps are removed for any cause, without the stone, they
e carefully replaced by the forefinger of the left hand, as a guide for
ntroduction. The boy immediately entered upon a rapid convalescence
operation.

detailed report of this case will be published in a future number.

H. H. A. Beach, M. D., Surgeon to Out-Patients.

◆

ICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

ollowing operations were performed on February 12 and 19, 1875: —
tula in ano. 2. Amputation of fingers. 3. Radical operation on hy-
of the cord. 4. Re-amputation of arm. 5. Stricture by Holt's dila-
Canthoplasty (three operations). 7. Exploration of thyroid tumor.
by galvano-cautery. 9. Condylomata by galvano-cautery. 10.
the tarsus. 11. Cystic tumor of neck. 12. Iridectomy. 13. Ton-
.

ration for Radical Cure of Hydrocele of the Cord. — The patient is about
rs old. The cyst is an inch in diameter. It has been punctured and
without any permanent effect. Dr. Cheever again drew off the se-
injected about a drachm of pure tincture of iodine, allowing it to re-
he sac.

Amputation of Arm. — The patient is the young man who received
d and comminuted fractures of the skull and left arm and leg, last
The arm and leg were amputated at the time; the former at the
t, and the latter in the fore-arm, at the junction of the middle and
irds. The thigh has been re-amputated twice for sloughing and re-
of flaps, and the patient now has a very good stump.

m-stump is conical and tender. The tissues covering the ends of the
d ulna are red, thin, and closely adherent to the bones. Dr. Thorn-
ected back the soft parts, and removed two inches of the radius and
e flaps were ample to cover the bones, and they were closed with
es.

loration of a Thyroid Tumor. — The patient is a man fifty years of
first noticed a small tumor on the right side of the neck, near the
rtilage, fifteen years ago. It grew slowly, and gave him no particular
ill about six months ago. Since that time it has increased rapidly in

size, and has pained him a good deal. He continued his occupation as a laborer until within a few weeks.

The tumor extends from a point a little to the left of the median line, round on to the right side, apparently external to the right sterno-cleido-mastoid muscle. Its largest diameter is about eight inches. It is lobulated, firm, and indistinctly fluctuating in the centre. It is only slightly movable, and does not rise and fall with the larynx. The skin over it is red but not thickened nor adherent. The larynx and upper part of the trachea are displaced two inches to the left. The growth also projects into the fauces. The voice is husky. The patient has had several attacks of spasm of the glottis, and has constant dyspnœa; he swallows with difficulty; his skin is tawny and he has an anxious countenance.

Dr. Thorndike explored the growth with the aspirator, with the effect of obtaining only a little blood. The question of an attempt at removal is under consideration.

10. *Caries of the Tarsus.* — This was a case of long neglected disease of the foot in a child six years of age. There were five sinuses leading down to diseased bone. The child was etherized, and the operation performed by Dr. Cheever. The hæmorrhage was controlled perfectly by Esmarch's method. The sinuses were enlarged, and almost the whole tarsus was found to be diseased. As the parents refused an amputation, to remove the diseased bones piecemeal was the only alternative.

Two long, horizontal openings were made on the inner and outer aspects of the tarsus; well back on the os calcis on the outside, and from the tubercle of the scaphoid forwards to the first metatarsal on the inside of the foot. The entire mass of vessels, nerves, and muscles, both on the dorsal and the plantar aspect of the tarsus, was peeled away from the bones with a blunt periosteum scraper. Through these two openings every bone of the tarsus except the astragalus was removed. The ankle-joint was not opened. The great cavity left between the astragalus and the heads of the metatarsal bones was then temporarily packed with two small compresses filled with minutely broken sponges, and the foot bandaged with a dry cotton roller. The rubber tubing was then taken off, and the whole hæmorrhage, from beginning to end, did not exceed two drachms. Suppuration was established in forty-eight hours, and the packing was removed without pain or bleeding.

Quite a number of cases of removal of the tarsus have resulted in a good foot; notably some recently reported by Dr. Patrick H. Watson, of Edinburgh.

GEO. W. GAY, M. D.

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LETTER FROM VIENNA.

MESSRS. EDITORS, — In connection with my letter about Lyons, I will merely mention that the French Assembly has voted Faculties for both Lyons and Bordeaux. It will now be interesting to see who will be named professors. If MM. Ollier and Chauveau are not among them, the reason will probably be that these gentlemen are not sufficiently orthodox to suit the clerical party.

But my present object in writing is to touch on a few matters in Berlin and Vienna. Through the kindness of one of the directors, Dr. Trendelenburg, I was enabled to visit very thoroughly the new City Hospital, which has been open but a few months for the reception of patients. This hospital struck me as being so admirable, that a short account of it may not be uninteresting to your readers.

It is situated on — for Berlin — high land, at the extreme east end of the city; it consists of an administration building, twelve pavilions for patients, a kitchen and laundry, an autopsy and museum building, and a small building almost luxuriously fitted up for Turkish and Russian baths. These buildings are all of brick, neatly trimmed, and far enough separated from each other to allow each the full benefit of light and air. Of the twelve pavilions eight are two-storied and intended for medical cases, while the other four are one-storied, and reserved for surgical cases. Each pavilion has its own heating apparatus. Fresh air, supplied through a tunnel communicating with the outer air at several rods' distance from each pavilion, is warmed in its passage to the wards by contact with hot water pipes. Ventilation is secured by a wooden draught chimney and double roof. The wards are wide and are floored with tiles; the walls are thickly painted and have high windows which, however, are double; the beds are well separated.

Each ward has ample accommodations for water-closets and simple hot and cold baths, besides a light and airy room to serve as a convalescent dining and sitting room. The pavilions and kitchen are connected by asphalt uncovered walks, and the food is conveyed in little iron hand-carts, provision being made for keeping it warm in transit. The hospital is calculated for six hundred patients, and will not be made use of for clinical purposes. The physicians in charge must do everything themselves, even to writing out the histories of the cases; to enable them to do this, they are provided with rooms and board in the hospital, and receive an annual salary of several hundred thalers.

The day on which I visited the institution was sufficiently cold and raw, but the ventilation and temperature of the wards were admirable. Altogether it is a hospital of which Berlin may well be proud. The surgical pavilions would be better, perhaps, in wood or some cheap material; but if they demolish and rebuild them every few years, the tax-payers only have a right to complain.

This semester Professor Traube gives no instruction, his health not being very good, it is said. His place is taken by his son-in-law, Dr. Fraentzel. Never having heard Traube lecture I cannot compare the two men; but Fraentzel impressed me very favorably indeed, and I was very glad to see that he recognized the part which the French have played in bringing medicine to the point which it now occupies. I think that it is too often forgotten both in Germany and in Austria.

Two cases which I saw in Fraentzel's service were so interesting to me that I cannot forbear giving them a few words. A comatose man was brought into the hospital one Sunday afternoon by the police, who had found him in a freight car on a siding of one of the railways. His temperature was taken, both in the axilla and in the rectum, at least two thermometers being used, and found to be

24.4° C. (76° F.) ! Twelve hours later it had come up to 33° C. (91°
not very long after the man came to his senses, and said that Saturd
noon he was on a spree, and was *conscious* of having drank *three ch*
bottles full of brandy! He must then have wandered about till he laid
down in the empty freight car in which he was found twenty-four hou
He recovered entirely.

The other case was similar. A man was discovered by the police in on
public gardens, unconscious. His temperature on entrance was 24. 2°
twelve hours later, when I saw him, he was still unconscious, with a tem
of 26.2° C. The reaction being so slight a bad prognosis was made for
I left Berlin too soon to hear the result. That he also had had a large
alcohol is highly probable, but the fact could not be definitely asce
Fraentzel says that schnapps-drinking increases every year among t
classes, and that every day-laborer who enters the hospital can be set
a "potator" without hesitation. I saw the straps in use a number of
the wards.

Here in Vienna there is not very much new. The filling of the
pathology and pathological anatomy is still, unsettled, though a s
taken by the Faculty at their meeting a few nights ago. Klob and
(the former prosector at the Rudolf's Stiftung, and with a practice, it
of ten thousand dollars a year, which he agrees to give up; and the l
sistant to Rokitansky) are recommended to the minister, by a majority
out of twenty-eight, as "provisional professors" for two or three years
the *Wochenschrift* and the *Presse* protest against the nominations. The
says that from Recklinghausen to Kundrat is too great a leap, and t
pers think it likely that the minister will refuse to concur.

The Langer-Benedikt affair is not very new, but may not be known t
of your readers. In short, it is this: Professor Benedikt wrote a very
letter about Professor Langer — at that time dean of the faculty — to a
rate daily paper on account of a supposed injury which the dean ha
him. In consequence of this the academical senate recommended the
ter of public instruction to deprive Professor Benedikt of his profes
But the minister decided to let him off with "a sharp reprimand," wh
academical senate was instructed to administer to him. The senate
ever, says that the minister constitutes a court of appeal which has set a
sentence, that it does not know what is meant by "a sharp repriman
that the minister must deliver his own sentences. So Professor B
remains. This is not the only instance of late where the lay press ha
made a vehicle of purely professional matters. During my stay in V
have heard more than once of the profession in America being reproach
being absorbed in pecuniary rather than scientific advance; but I have
hear of a professor in a school of any standing attacking a colleague
daily press.

The question of medical fees has been attracting a great deal of atte
late, and as it offers some points of interest I will try to bring them
another letter. Respectfully yours, FREDERICK C. SHATT

VIENNA, *January* 12, 1875.

SHOULD PRINTED LINES BE SHORT?

MESSRS. EDITORS, — I am very much obliged to you for Dr. Holmes's article on rhythm and respiration; I had been specially desirous of seeing it. It is very curious, and may yet be developed in ways beyond any he has spoken of.

There is another subject I wish some one would take up and report upon; and that is the length of printed line required for the easiest reading. I suppose it will be admitted that if the New York *Times* or *Tribune*, the Boston *Post* or *Advertiser*, should widen its columns to the length of ten or fifteen inches, it would, in a short time, lose all its readers. If you undertake to read a page of the *North American Review*, and then one of *Littell's Living Age*, you will find the latter much the easier reading. Or, to make the comparison more effectual, suppose you read a page of one of the English reviews and then a page of the same article in the American review, the former having lines of five or six inches in length, the latter not much more than half as long. Or consider more particularly the great difficulty in reading legal documents, insurance policies, gubernatorial proclamations, college diplomas, and the like, the lines of which may be twelve inches, twenty inches, or two feet long; no one reads such papers if he can help it.

And the reason is the necessity of moving the head on its axis, to turn the eyes from the left to the right, and *vice versâ*; but still more, and what is a vastly greater evil, the constant demand on the eye to change its focus in order to accord with the varying distance from the eye to the extremes and the middle of the line. Some persons would perhaps deny that any such inconvenience is experienced. These persons have probably considered very carelessly their own sensations, and make very little allowance for those of others. Such persons, too, have very likely paid little attention to the reason why some print is less attractive than other print. But after a good deal of observation, I am persuaded that it is important, for physiological reasons, to keep short the lines of the newspaper, and to induce the publishers of magazines, and of all octavo volumes whose type is as small as bourgeois or nonpareil, to print two columns on a page.

Some sense of this difficulty to the eye is probably the reason why commercial note paper and other smaller sizes have taken the place of letter and cap size; though the sense may have been too slight to make a clear impression on the consciousness. We know that small inconveniences are really great obstructions. The postal card owes very much of its popularity to the superior convenience it possesses over the form of letter which requires folding, enveloping, and stamping. The world at large may not know the reason, and might be slow to admit that the writing and fitting a letter for the post-office entailed any inconvenience whatsoever; but the fact that letters will not be written, and postal cards will be, shows that people feel the inconvenience.

And the long lines of print are so serious an inconvenience, involving indeed so much injury to the organs of sight, it seems to me that benevolent ophthalmologists ought to do something to attract the attention of publishers and printers, and give some help and relief to persons of my age and feebleness of vision. Yours truly, E. B.

DEERFIELD, *January* 29, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending February 27, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: influenza, bronchitis, pneumonia, and rheumatism.

In the Connecticut Valley: influenza, bronchitis, pneumonia, and rheumatism. Small-pox is in Holyoke, and cerebro-spinal meningitis is in Orange.

In Worcester County: bronchitis, measles, pneumonia, scarlatina, influenza, and rheumatism. Measles and scarlatina have increased in prevalence.

In Middlesex and Essex: influenza, bronchitis, pneumonia, scarlatina, rheumatism, and measles. Cases of diphtheria in Wakefield are still reported.

In Boston and its suburbs: bronchitis, measles, pneumonia, rheumatism, influenza, and scarlatina. The epidemic of influenza, which reached its maximum two weeks ago, now appears to be subsiding.

In the Southeastern counties and among the islands: bronchitis, influenza, pneumonia, whooping-cough, and rheumatism.

It will be observed that throughout the State the diseases of the respiratory organs — bronchitis, influenza, and pneumonia — maintain their place at the head of the list of prevalent diseases. There is an increased prevalence of pneumonia, rheumatism, and scarlatina; measles remains as at last report; all other diseases show a diminished prevalence. The type of all the diseases is reported generally as mild.

Measles has its field of maximum prevalence in Suffolk; scarlatina in Worcester; diphtheria in the Connecticut Valley and in Essex.

F. W. DRAPER, M. D., Registrar.

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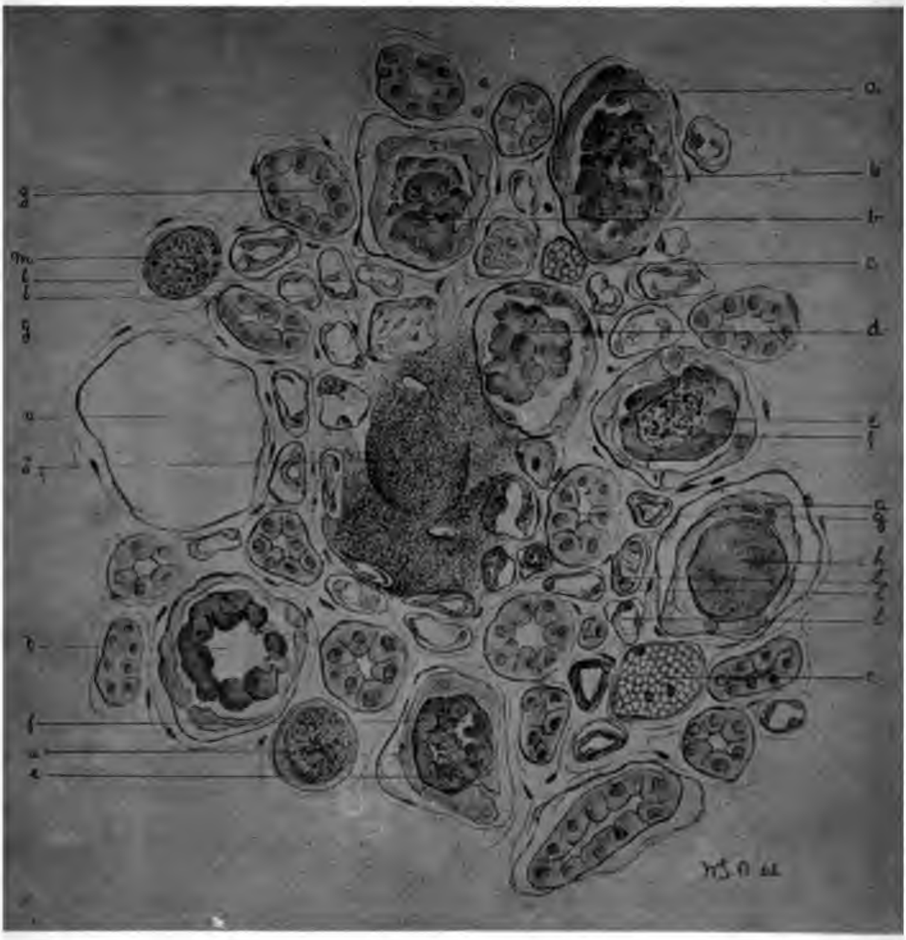
COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING FEBRUARY 20, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	627	31
Philadelphia	775,000	339	23
Brooklyn	450,000	202	23
Boston	350,000	175	26
Providence	100,000	38	20
Worcester	50,000	17	18
Lowell	50,000	20	21
Cambridge	44,000	17	20
Fall River	34,200	14	21
Lawrence	33,000	19	30
Springfield	33,000	7	11
Lynn	28,000	17	32
Salem	26,000	8	16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THE BOSTON
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VOL. XCII. — THURSDAY, MARCH 11, 1875. — NO. 10.

UNUSUAL RESULT OF SEPTIC POISONING: DISCOLORED SKIN; DIPHTHERIA; HÆMATURIA; SPORES.

A GRADUATION THESIS, JULY, 1874.

BY WILLIAM STURGIS BIGELOW, M.D., OF BOSTON.

TWEEN the months of September and December, 1873, ten of the -born children at the Boston Lying-in Hospital were attacked by narked symptoms of an unusual character. Eight died and two ered. The microscopical examination of a kidney and larnyx one of these subjects having shown certain exceptional appear-, the records of the hospital were examined for a history of the . The symptoms and the autopsies there recorded, although less lete than might be desired, distinctly traced the existence of a us endemic affection. As the symptoms of this disease and the appearance of the affected organs were similar in all the cases, it unfair to infer that a microscopical examination of the diseased s would have revealed a corresponding general resemblance in minute changes. The following account of the cases is taken the hospital records.

FATAL CASES.

Male, six and a half pounds. Born September 8th. September Skin dark, discharges green and fœtid. 18th. No better; one

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EXPLANATION OF PLATE.

TRANSVERSE SECTION NEAR THE BASE OF A MALPIGHIAN PYRAMID.

a. Epithelium in tubes of Bellini. Outline of cells obliterated.
b. Lobulated masses of globulin.
c. Vein containing blood corpuscles.
d. See *b.*
e. Tubular cast of globulin.
f. Granular globulin in centre of cast.
g. Tubes of Henle. Epithelium intact.
h. Solid mass of globulin in tube of Bellini.
l. Henle's loops.
m. Artery containing granular débris of blood corpuscles, similar to *f.*
o. Tube of Bellini, empty.
s. Spore colony extending through walls of tube into parenchyma.
t. Annular cast of globulin.
u. Granular globulin in tube of Henle.

diaper covered with blood and the dark green discharge from the bowels. 20th. Much weaker. 24th. Died.

2. Male, nine pounds. Born September 5th. On the 12th the child seemed unwell and would not nurse; discharges watery; skin very blue. 13th. Died. The color of the skin resembled that resulting from continued doses of nitrate of silver; discharges dark green and fœtid; mouth almost black, and very sore. Death in sixteen hours.

3. Female, nine and a half pounds. Born September 7th. September 14th. Taken sick at three this morning; discharge from bowels dark green and very offensive; skin of the color produced by repeated doses of nitrate of silver; respiration normal and rather slow; heart regular; will not nurse. 15th, evening. Rather better. 16th, evening. Better. Skin more yellow. 17th. Better. 20th. Mouth bleeding; mucous membrane sloughed off. 21st. Worse; hæmorrhage from kidneys. 25th, 10 A. M. Died.

Autopsy. Dark color somewhat faded out. Peritonitis. Adhesions about spleen. Upper part of larynx, pharynx, and œsophagus covered with a diphtheritic membrane, which could be stripped off œsophagus. Larynx ulcerated. Intestine apparently healthy throughout. A clot of the size of a finger's end existed in the bladder, being a cast of the interior of the organ. The pelves of the kidneys and the ureters were filled with coagulated blood, as were also the Malpighian pyramids. At this time an opinion was expressed that diphtheria was the primary cause of the child's death.

4. Female, ten pounds. Born October 16th. 23d. Became ill. Vulva inflamed. 24th. Metastatic abscess on back of hand. 25th. Patient worse; circumscribed abscess on scalp; other new abscesses forming. 26th. Odor offensive; left leg purple; hand swollen; right arm paralyzed. 9 P. M. Died.

5. Female, six and a half pounds. Born November 3d. November 10th. Child became blue last night; the mouth is very sore; diaper black and offensive; some blood on diaper from urine. 11th, 8 A. M. Died.

Autopsy. This child was almost black after death, the skin resembling that of a negro. There was no disease of the umbilical vessels and no diphtheritic inflammation of the larynx or pharynx. Some change existed in the structure of the liver, simulating acute yellow atrophy. A large coagulum was found in the bladder. The other organs were healthy, including the brain.

6. Female, six pounds. Born November 1st. 10th. Child became sick; mouth very sore. 11th. Much worse; turned very dark; dejections black and offensive. Evening. Child worse; refuses to nurse, and moans continually. Died at midnight.

Autopsy. Dark color but little faded after death. Umbilical vein i a state of thrombo-phlebitis; contents in a condition of puriform softening. Spleen large and dark. Kidneys dark, with clots in pelves. Other organs, including larynx and pharynx, healthy. No coagulum in bladder.

8. Male, seven pounds. Born December 8th. December 18th. A little dark; diaper dark and offensive; mouth very sore. 19th. Two operations last night, with the latter of which the urine was bloody; two during the day. 20th. One operation last night, and one during the day; worse in the evening. 21st. One operation during the night, and another in the course of the day; will not nurse. Evening. Mouth worse; cannot swallow. 22d. One operation last night; worse to-day. 8 P. M. Died.

Autopsy. Emaciation. Color had been deep but is now faded. Umbilical vessels healthy. Liver normal; ductus venosus closed. Spleen large and dark. Pelves of the kidneys full of blood; Malpighian bodies injected; whole organ engorged and dark. Larynx diseased, a diphtheritic membrane covering part of vocal cords and glottis. Other organs healthy. No clot in bladder. Small purple points of extravasation over whole body.

CASES OF RECOVERY.

9. Male, nine pounds. Born November 2d. Was attacked November 12th, and turned dark.

℞ Tincturæ ferri chloridi, gtt. iij., every two hours.
Wine and water every two hours, alternating with the iron.

November 13th. Child was much better and continued improving up to November 17th, when the mother and child were discharged.

10. Female, nine and a half pounds. Born November 16th. November 24th. Child turned dark last night; mouth very sore; hæmorrhage from kidney.

℞ Tincturæ ferri chloridi, gtt. iij., every three hours.

Evening. Four operations; urine bloody; discharge from eye. 25th. Child a little better, and nurses a little; three operations last night. Evening. About the same; eye still discharging; during the day three dark and very offensive operations. 26th. Much better; one operation last night; three during the day; better color. The eye being about the same, was washed with

℞ Zinci sulphatis, gr. j.
Aquæ destillatæ, ℥j.

Evening. Condition improved. 27th. One operation last night; none during the day; child much better. 28th. One operation during the night; still improving; eye much better; mouth nearly well; no operation during the day. 29th. Two operations during the night. Evening. Much better; eye about the same. 30th. Much improved. Discharged.

The house physician[1] states that in these cases four symptoms were prominent although not always recorded, namely, —

1. Deep discoloration of the skin.
2. Hæmaturia.
3. Diphtheritic inflammation of some of the mucous surfaces, in every case but one, where a thrombo-phlebitis of the umbilical vein existed.
4. Dark green offensive dejections.

The order of appearance of these symptoms may be approximately determined from the record. In eight cases the discoloration appeared on the first day; in one on the second. The diphtheritic symptoms appeared in six cases in the first day, but in one on the sixth. The hæmaturia appeared three times on the first day, in three cases on the second, once on the seventh. The dark dejections, seven times on the first day and once on the second. The duration of the shortest case was sixteen hours; that of the longest fatal case was eleven days; the average length being about five days, and the average age of the infants when attacked about eight days.

Autopsies. — Post-mortem examinations were made in every instance. Four only are recorded, but Dr. Fitz, by whom they were made, states that these may be considered as fairly representing the rest. The following results were arrived at: —

The brain, intestinal tract, and lungs were normal.

The spleen was always enlarged and dark, peripheral inflammation being sometimes indicated by the existence of adhesions.

The liver was as a rule relatively unaltered; but in one case presented alterations simulating acute yellow atrophy.

The kidneys showed evidence of engorgement. The pelvis of the organ was generally filled with coagulum, as were the ureters and bladder.

The mucous membrane of the mouth, and in one instance that of the vulva, showed evidence of active diphtheritic inflammation. In some instances the larynx and pharynx were involved, and in one case the œsophagus.

Thrombo-phlebitis of the umbilical vessels was found in one or two cases.

A *microscopical examination*, by the writer, of between two and three hundred sections of a kidney gave the following results.[2] (See Fig.)

The small arteries were generally dilated, either with blood corpuscles or with an unevenly granular mass (m), of a color varying from nearly gray to brown, the color being in proportion to the fineness of the granules. In the latter substance there was no trace of blood disks. The small veins (c) were filled with corpuscles, but in no case so far as observed with granular matter. The tubes of Bellini were distended with matter resembling that found in the arterioles, but varying in consistency from the granular condition above mentioned (f) to that of large, brown, semi-transparent, lobulated masses, inclosing deep red amorphous granules of hæmatin (b). These sometimes filled the tube entirely, and sometimes lined it in the form of a hollow cylinder (e).[1] In the latter case the central cavity of the cylinder was seldom empty (b), but filled with similar material in a granular condition (f). More rarely, two or three cylinders occupied the same tube, as if they had been formed in one of the smaller tubules and floated to their present position. The looped tubules of Henle (l) were for the most part empty, but occasionally contained masses of the same substance. The convoluted tubes were generally filled with the same material, but only in one or two cases was there any trace of extravasation into the Malpighian capsules. The Malpighian corpuscles were generally injected. The renal epithelium was usually displaced and shrunken, but sometimes absent; changes in part, perhaps, due to the action of preservatives. In the large straight tubes it was generally contracted away from the walls into close contact with the inclosed cast (a), the outline of the cells being lost, and only an occasional nucleus remaining visible. In Henle's loops it was generally represented by one or two detached shreds (l), while in the straight tubes lying between the convoluted tubes and those of Bellini it was best preserved (g).

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[1] Dr. Samuel Howe.

[2] The specimens were prepared for examination by hardening them while fresh in a two per cent. solution of chromic acid in water for several days. They were then preserved in alcohol. The sections were washed, stained with hæmatoxylin, again washed, the water displaced by absolute alcohol, and this by oil of cloves.

Distinct from the brownish material of these casts, the tubes contained at various points accumulations of a gray, homogeneous, and finely granular material, in the form of a long, broken cylinder of which the outline was interrupted at intervals by continuations of the substance through the walls of the tube into the interstitial tissue. A cross section of such an accumulation is indicated in the centre of the figure (s), where the outline of the tube originally containing the granular matter is nearly obliterated by the extent of the extravasation. In their gross appearance these granules resembled spores, the "cocco-bacteria" of Billroth, and on the addition of potash hydrate they were found to be insoluble. The optical and chemical properties thus gave strong evidence of the identity of the granules observed in this case with those usually regarded as spores.

Under these circumstances, the existence of similar spores in the larynx might be anticipated, and such proved to be the case. On examination, its surface was found covered with a diphtheritic infiltration which offered no unusual appearances. The surface was ulcerated at points, presenting shallow, ragged excavations. The individual epithelial cells were generally separated by the accumulation in the interspaces of a translucent, homogeneous material of a high refractive index, the neoplastic nature of which was suggested by the greater readiness, compared with the surrounding tissue, with which it absorbed hæmatoxylin. The submucous areolar tissue was thoroughly infiltrated with wandering cells and granules (bacteria spores), which were at points so crowded as to indicate a tendency to abscess formation. The endothelium of the muciparous glands was slightly more transparent than usual, while around the tubules were occasional extravasations of a translucent, delicately striated, colorless material of doubtful origin. Lastly, imbedded in the epithelial layer, each covering the area of twenty or thirty cells, were numerous groups of spores, exactly resembling, in appearance and reactions, those found in the kidney.

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[1] The possibility of such casts being composed of desquamated epithelium, agglomerated and stained with blood-coloring matter, is not to be denied.

Hæmaturia. — This symptom was in these cases associated with coagula in the bladder, extending up the ureters and filling the calyces of the kidneys, the tubes of which were filled with the highly colored solid materials of the blood which had penetrated to their interior. This was observed, not at isolated points of mechanical rupture or inflammatory softening, but throughout the organ, more especially in the Malpighian pyramids. This material was amorphous, and in no case was a well-defined blood-corpuscle found inside a tube. The supposition which best accounts for the appearances here detailed is either the existence of some alteration of the blood which would allow the passage of the material of the corpuscles through the walls of the tubes, or an alteration of the tubes or vessels themselves, or both. Again, so plentiful a development of spores at remote points would suggest transmission through the circulation.

Discoloration of the Skin. — That this was in some degree due to a capillary hyperæmia was shown by its partial disappearance after death. But to a great extent it did not disappear, either spontaneously or on pressure. Besides, the modifications of color were not such as occur while the blood is contained in the capillaries, but rather resemble those of a subcutaneous ecchymosis from violence. Such a penetration and staining of the subcutaneous areolar tissue by the coloring matter of the blood is fairly attributable, under the circumstances, to the conditions previously mentioned.

Diphtheria. — This symptom affords additional evidence to the same effect, since, in the form in which it commonly occurs, diphtheria is associated both with colonies of spores in the larynx and with a modified condition of the blood.

Dark Dejections. — No alteration of the intestinal tract was found which accounted for this symptom.

Thrombo-phlebitis of the umbilical vein, which occurred in one instance, is of interest as suggesting a possible source of disease in that case, since the puriform contents of a vein might bear the same relation to the disease under consideration that a suppurating wound bears to an ordinary case of pyæmia, a view favored by the absence of well-marked diphtheria in the case referred to. Under these circumstances it is to be regretted that no microscopic examination for spores in the blood was made during life, and that the only fact ascertained with certainty is, that in some of the injected veins of the kidney the white corpuscles were largely increased in number, being in the proportion of about one to twenty-six of the red.

In the *Archives de Physiologie* for September, 1873, M. J. Parrot describes, under the name of "Tubulhématie Rénale," two cases occurring in infants, which, although differing from the above in some points, correspond so closely in their essential features as to leave little doubt of their similarity. The first of these cases is stated as follows: Convulsions, bronze discoloration of the skin, hæmaturia, alteration of the blood, phlegmonous erysipelas of the scalp, softening of the brain, lobular pneumonia, and multiple renal lesions, the latter consisting of a "centre of softening in one kidney" and numerous points of supposed incipient softening of the size of a pin's head, in which the microscope showed everything veiled, so to speak, by extremely fine granulations, into which part of the renal parenchyma appears to have been transformed. Blood casts, in the form of hollow, and more rarely solid, cylinders, were found in the large tubes of Bellini, sometimes to the number of twelve to twenty in a single tube. Here and there was a spot of a lighter color, in no way recalling a blood corpuscle, sometimes isolated in the tubules, sometimes occupying the center of the tubular casts."

The second case was characterized by "bronze discoloration of the skin, mahogany-colored urine, excess of white corpuscles, encephalic disturbance (strabismus), pneumonia, and renal lesions." At the autopsy, the brain, liver and stomach were found normal. A clot of some days' standing was found in the pulmonary artery, and old clots in the renal veins. "Muguet buccal," though without mention of the fungus (*oidium albicans*) characteristic of this disease, is recorded in the account of the symptoms, but omitted in the summary. The occurrence of epileptiform convulsions in the first case is adduced as evidence of uræmic poisoning, a supposition which does not seem to be confirmed.

Both cases exhibit three symptoms characteristic of this disorder, namely, discolored skin, hæmaturia, and inflammation of the mucous membrane of the mouth. The character of the dejections is not mentioned.

The conclusions of M. Parrot from these two cases are as follows: —

"Tubulhématie rénale is characterized, clinically, by encephalopathic troubles, a bronze discoloration of the skin, an alteration of the blood, and hæmaturia; anatomically, by the presence in the renal tubules of the red blood-globules which there take on a special arrangement."

"Tubulhématie rénale is caused by a primitive dyscrasia of the blood (a diminution, and probably an alteration, of the red globules)."

These conclusions are not altogether corroborated by the Boston cases, which were not characterized by encephalic symptoms, and were accompanied by diphtheria, not muguet. It has been shown also that the alteration of the red corpuscles was something more than an "agencement particulier."

It will be especially observed that M. Parrot, in recognizing a change of the blood as the principal cause, stops short of any further and remote cause of the conditions which have been described.

The Boston cases seem to imply that this alteration of the blood may be secondary, and dependent upon some local process of a septic nature, such as a diphtheritic inflammation or a thrombo-phlebitis, from both of which sources spores might readily be transported to the kidney.

A detailed description of the condition of the blood during life is o interest in connection with the Boston cases. The following point were noted by M. Parrot: —

1. Excess of white corpuscles.
2. Deficiency of red corpuscles.
3. A probable alteration of the red corpuscles, inferred from th existence of numerous bodies of smaller size, each containing from on to three granules.
4. A great number of fine granules floating in the serum.

The last fact deserves attention. It is held by some of the bes modern observers that even in health a certain number of organic germ or spores exist in the blood, an increase in the number of which i associated with the development of certain diseases, notably those classe as septic. The numerous small granules observed by M. Parrot in th general circulation suggest a possible origin of the spores which we identified by tests in the Boston cases. But the origin of the granul themselves is not clear. M. Parrot inclines to the belief that they a produced by an alteration in the red corpuscles. It should be reme bered that a breaking up of the red corpuscles is by no means unusu in certain febrile and inflammatory disturbances, in which case numero fragments, although there may be no granules, are found, as in t instances cited.

Since the above was written, a brief notice has appeared in the *Rev des Sciences Médicales*, No. 5, January 15, 1874, of the description an "epidemic" of the same disorder at the Hôpital de la Maternité, a Lyons, by MM. Laroyenne and Charrin. The cases seem to be ge erally identical in character with those observed in Boston. The altera tion of the blood, consisting of "leuko-cytosis, granulations, and augmentation of the volume of the red corpuscles," is regarded as a primordial phenomenon. "In no case was there any appearance of cerebral symptoms, nor did any lesion of the brain appear at the autopsy." "For want of sufficient materials, M. Charrin has not solved the question of pathogenesis. It remains to be discovered by what cause the alteration in the blood is produced." The hygienic conditions of the Lyons hospital, like those of the Boston hospital, were excellent at the time the endemic occurred. The number of cases was fourteen and all were fatal.

In conclusion, it may be added that in the present imperfect state of knowledge of the relation of germs to disease, involving a probability that any inconclusive theory will be superseded by some other, the following statement appears to be consistent with facts so far as known. Newly born children may be attacked by a disease or diseases generally fatal, with certain conditions in common, but with other conditions, such as diphtheritis and thrombo-phlebitis, of such decidedly local character that it seems advisable to regard these last as the essence of the disease. The characteristic features are, —

1. Discoloration of the skin.
2. Diphtheritic inflammation of some of the mucous surfaces. In one case, thrombo-phlebitis.
3. Hæmaturia.
4. Dark green fœtid dejections.
5. An alteration of the blood, consisting in (*a*) excess of white corpuscles; (*b*) alteration of the red corpuscles; (*c*) the existence of granules.
6. Accumulations of the amorphous material of the red corpuscles in the renal tubules, with clots in some cases in the ureters and bladder.
7. Accumulations of spores: (*a*) in the renal tubes, with extension outside their walls; (*b*) in the larynx, and possibly on the other surfaces affected by the diphtheritic process.

The process is generally endemic. The local accumulation of spores appears to be in close relation to the phenomena of the disease.

The following questions are suggested by the above cases: —

(*a*.) The identity of some of the granules in the blood and the spores.

(*b*.) The origin of the granules in the blood, and their possible connection with atmospheric germs.

(*c*.) The exact nature of the alteration of the red corpuscles.

BABIES' SORE EYES, AGAIN.

BY HENRY W. WILLIAMS, A. M., M. D.,
Professor of Ophthalmology in Harvard University.

IF the remarks of Dr. Derby, in the JOURNAL of February 18th, had been merely an ordinary criticism of my article on the ophthalmia of new-born children,[1] I should not have thought a rejoinder necessary. But when my friend takes exception on the ground that, "coming from one who occupies the official position of a teacher of ophthalmology, it cannot be passed over in silence by those members of the profession who pin their faith on the practice which he reprobates," and further says, "With all respect for the sincerity of Dr. Williams's belief, I would state that he stands comparatively alone among ophthalmic surgeons in discarding the use of nitrate of silver in the ophthalmia of new-born children," I cannot do less than defend the suggestions I made as to the proper course to be pursued in this disease. This I do for the same reason which induced me to write my previous article, namely, that the question has an interest for the profession at large, into whose hands these cases must generally fall.

On the subject in question I have not merely a "belief," but a conviction; a conviction founded, on the one hand, upon my having personally witnessed the method advocated by Dr. Derby, in the practice of the very men themselves whose authority he cites, and on my having seen frequent and recent instances of its harmfulness as applied by those of less experience; and, on the other hand, upon careful observation, and a long and successful use, of milder measures; for which, however, no credit for originality belongs to me.

Dr. Derby quotes four authors "as exponents of the four leading European schools." But of these, one represents the school of Vienna, the other three, virtually, the school of Berlin, all of them being well known as its disciples.

Now, I may appeal to these very men in support of the position I took, that the "cauterization," advocated by them, is ***dangerous***, ***cruel***, and ***needless***. Wecker says, "It is true, the cauterizations are very painful for the infants,"[2] and, "their agitation and sleeplessness are probably due to the treatment they are made to undergo."[3] Furthermore, Wecker and others insist most strongly, in their instructions as to the use of the *lapis mitigatus*, on the great importance of its application at exactly the right time, neither too soon nor too late after the previous cauterization — too soon, if applied after the elimination of the eschar before the regeneration of the epithelium; too late, if the epithelium has reformed and the tumefaction of the conjunctiva reappeared. "It is only by cauterizations applied precisely before this period of relapse that we can arrive at a favorable result; and it is difficult to decide whether this has occurred, as it is only by a very attentive observation that it can be perceived. The increase of secretion, of which the patient can best inform us, gives us the best indication as to the time when we should repeat the cauterization." [1]

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[1] Journal, January 28th, 1875.

[2] Wecker, Études Ophthalmologiques, tome i., page 51.

[3] Wecker, Études Ophthalmologiques, tome i., page 62.

Here is an interesting state of things! Even the skilled oculist cannot, by his own observation, determine, in an adult, the proper time for cauterizations which he avers must be made with great precision; but must get his most important information from the patient's sensations. How, then, can the general practitioner determine these nice points, and in babies, too, who cannot give any information?

Wells says,[2] "In out-patient practice, where the patients can only be seen two or three times a week, by far the best remedy is the injection of the collyrium of alum and zinc, as employed at the Royal London Ophthalmic Hospital (zinc. sulph. gr. ij., alum gr. iv., aquæ destil. ʒi.). A little of this is to be injected with a glass syringe between the lids. The frequency of the injection must be regulated according to the severity of the disease." This, "by far the best remedy" for those who are not to be under his constant supervision, he evidently considers all-sufficient to insure good results; for of course he would not allow eyes to be endangered for the want of any essential means. But he goes on to say, "If the patient can be seen every day, or even more frequently, the mitigated nitrate of silver in substance should be used." Yet he tells us, in another chapter,[3] "The injudicious and excessive use of caustics in the treatment of purulent ophthalmia (more particularly that of children) may change the disease into the diphtheritic form."

Galezowski, of Paris, says,[4] "The cauterizations with the mitigated crayon of nitrate of silver sometimes cause such violent pain that the infant's cries are followed by convulsions."

In the splendid work recently published by Stellwag,[5] Professor of Ophthalmology in the Imperial Royal University of Vienna, we find, "The *abortive* method, which has very recently been adopted, involves the most danger. This consists in penciling the conjunctiva, once or twice a day, with strong solutions of nitrate of silver, say ten or twenty grains to the ounce of water, or with the mitigated stick (nitrate of silver and nitrate of potash). The slough of itself increases the inflammation already caused by the agent. The result is very generally a marked increase of the inflammatory symptoms, which antiphlogistic treatment is not always able fully to subdue by the time of the next cauterization.

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[1] Wecker, Études Ophthalmologiques, tome i., pages 48, 49.

[2] Soelberg Wells, Treatise on Diseases of the Eye, pages 32, 39.

[3] Soelberg Wells, Treatise on Diseases of the Eye, page 43.

[4] Galezowski, Traité des Maladies des Yeux, page 182.

[5] Stellwag von Carion, Diseases of the Eye, page 319.

"This is beginning to be understood by those who advised this method of treatment."

Thus it appears to be sufficiently proven, by our critic's own authorities, and others familiar with the method, that the nitrate of silver, *lapis infernalis*, and its half-brother, *lapis mitigatus*, are still to be regarded as edged tools, not to be heedlessly handled even by the most experienced; that their use in this disease is attended by much suffering and danger, unless resorted to at a particular stage of the disease, which stage cannot easily be determined even by experts; and that they are by no means essential remedies, since patients (*vide* Wells) get along without them when strict cleanliness and mild astringents are the means relied on. Let us see what others say can be done without these agents.

The founder of the Royal London Ophthalmic Hospital, Moorfields, as great a genius in his day as Graefe in ours, thus writes in regard to the treatment of this disease:[1] "Very moderate astringents are the best. I have never had occasion to employ any other astringent than a solution of alum, varying from two to six grains to the ounce of water."

Lawrence says,[2] "Even the most violent form is easily manageable, and will do well when properly treated. We generally use a simple solution of alum, in the proportion of two grains, which may be increased to six grains, in the ounce of water. Such was the treatment at the London Ophthalmic Infirmary, and out of many hundred cases I hardly recollect one where the eye suffered in any respect."

Walton thus lays down his treatment of purulent ophthalmia at the Central London Ophthalmic Hospital:[3] "The astringent I generally use is a solution of alum, four grains to the ounce of water. I feel assured that all applications to the conjunctiva that produce severe or prolonged pain are injurious. I attach great importance, at all periods of the disease, to frequent syringing with astringent lotions."

Druitt says,[4] "The ophthalmia of new-born children, if submitted to early treatment, is easily cured by great attention to cleanliness, and by incessantly washing away the discharge with some mild astringent lotion. The practice at the Central London Ophthalmic Hospital is to wipe away from the eye as much discharge as possible; then to apply a lotion of four grains of alum to an ounce of water."

Three of the colleagues of Mr. Wells at the Moorfields Hospital, all of them men of the highest standing, have recently published works on eye diseases.

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[1] Saunders, Treatise on some Practical Points relating to Diseases of the Eye, page 14.

[2] Sir William Lawrence, On Diseases of the Eye, pages 224, 226.

[3] Haynes Walton, Operative Ophthalmic Surgery, page 243.

[4] Druitt, Vade Mecum, page 362.

Dixon says,[1] "The best plan of treatment seems to consist in using, very frequently, a weak astringent lotion, so as to wash away the secretion before it has time to collect in any quantity. If the smooth point of a syringe be carefully placed just within the commissure of the lids, the wash will be propelled over the whole surface of the affected membrane. The surgeon must strongly impress upon the nurse how much the great question of the preservation of the child's sight depends on the regular use of the injection."

Hutchinson writes,[2] "With regard to the treatment of purulent ophthalmia, when occurring in syphilitic infants, the local remedies are by far of the greatest importance. Drops containing one or other of the mineral astringents, nitrate of silver, acetate of lead, or alum, should be prescribed. The two latter are preferable on account of the freedom with which they may be employed."

Lawson tells us,[3] "The indications for treatment are, to wash away the discharge from the eye as often as it collects, and to use some astringent lotion to arrest the re-secretion of the purulent matter. The lotion which I generally use is one of alum, six grains to an ounce of water."

To come nearer home: it is not long since I heard one of our most experienced ophthalmic surgeons, one who has been partial to the use of nitrate of silver in other circumstances, condemn its employment in this disease, at one of the meetings of the Suffolk District Medical Society, saying that he had known a great many eyes put out by its injudicious use. Since the publication of my article of January 28th, three of our colleagues in this city, whose large obstetric practice has brought many cases of infantile ophthalmia under their observation, have told me that for a long time they had used only the mildest means, and with full success.

I will add only the following letter, the unsolicited testimony of a physician whose experience and good judgment make his opinions highly valued throughout the community in which he lives.

"*February* 20, 1875.

"I have lately seen in the JOURNAL your remarks on ophthalmia of new-born children, and the reply of Dr. Derby in another number of the same JOURNAL.

"A painful experience, many years ago, impressed on my mind the necessity of prompt treatment in this disease, and I have been in the habit of using the nitrate of silver, either solid or in strong solution, until within the last four years. Having a case which caused me unusual anxiety, I called you in consultation, and, following your advice, I used the treatment that you have since recommended in your paper.

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[1] Dixon, Guide to the Practical Study of Diseases of the Eye, page 67.

[2] Hutchinson, Syphilitic Diseases of the Eye, page 187.

[3] Lawson, Diseases and Injuries of the Eye, page 19.

The simplicity of this treatment, its painlessness, and the good result of it were so marked, that I have since adhered to it, with invariable success.

"My own private practice, of course, does not furnish a very large field for the observation of this disease; but I have had an opportunity to see it at the St. Mary's Asylum in Dorchester. The very intelligent Sister of Charity at the head of this asylum has told me that she has seen, in the course of her experience in different hospitals, a great deal of the ophthalmia of the new-born and the purulent conjunctivitis of older children, and that the treatment has always been the application of caustics; but nowhere has she seen recovery so early and with so little suffering as we have had under your plan."

If the treatment advocated by Dr. Derby had in it anything of novelty, my objection to it might be ascribed to ignorance of its merits. But my acquaintance with the *lapis mitigatus* has been long, and my opportunities for seeing what it could do somewhat extensive. I was with Desmarres, at Paris, when he introduced it into use, and had ample facilities for seeing how far it justified the good opinion of its originator. On my subsequent visits to Europe I again watched its effects as applied by Graefe and Wecker; but I then saw no reason for reversing the judgment I had formed after previous observations and my own personal experience in its use. Nor have I since seen any such reason.

My opinions, therefore, have been neither hastily nor ignorantly adopted. The article in the JOURNAL of January 28th, to which Dr. Derby has objected, was prepared because I had within a short time previously witnessed cases of blindness where the disease had been treated (as would be deemed judiciously) with nitrate of silver. The profession certainly have an interest, for their patients' sake and their own, in learning how this serious affection may be treated the most quickly, safely, and pleasantly. And the question is by no means to be decided by comparative results of treatment in the two eyes, in one, or a few cases. The severity and duration of symptoms vary greatly, in the eyes of different infants, and in the two eyes of the same child. Many cases, which at first threaten to become purulent, turn out to be merely simple catarrhal inflammation, and subside by attention to cleanliness alone. Could the disease be shortened by the caustic treatment, we might accept its greater danger, and employ it in these cases as well as the severer ones, for the sake of the shortened term in the latter; but this is by no means proved. On the contrary, while severer cases are not shortened, and mild ones are aggravated, there are other immense disadvantages and serious dangers incident to this method. The infant, expecting fresh tortures, cries whenever the eyes are touched, though it be only for carrying out the "strict attention to cleanliness," which even the advocates of cauterization admit to be equally essential. The lids are spasmodically contracted, and complete eversion often takes place. Any examination of the condition of the eye, and especially of the state of the cornea, is rendered a very difficult matter; and the repeated use of an elevator becomes necessary, when otherwise gentle raising with the fingers would have sufficed for opening the lids. This necessary process of inspection is thus not only painful, but, in case of ulceration, may cause rupture of the cornea and destruction of the eye.

I would willingly stand alone, for a time, among ophthalmic surgeons, if, in so doing, I could be instrumental in substituting, for any harsh method, a more successful and milder treatment. It is not twenty years since I endeavored to show that salivation was not a *sine qua non*, as all the authorities taught, in the treatment of iritis. Few would now do reverence to the old plan. Mr. Wells writes,[1] "Formerly it was very much the custom to place all cases of iritis under the influence of mercury. Now, however, a more rational mode of treatment obtains." Stellwag says,[2] "The old belief in the absorbent power of mercurials has been very much lessened in modern times."

As regards another important point, the use of lead in collyria, I still have the "bad eminence" of standing nearly alone, most of the authors including acetate of lead among their list of remedies, whilst urgently warning against its use in some frequent complications of the very cases in which they advise it. One colleague, however, already appreciates the situation. Mathewson says,[3] "I go into these details of the evil results of the use of a popular prescription, sanctioned by the authority of some of the best known writers, to justify my opinion that lead applications to the eye should be wholly discarded. Certainly there is no necessity for using this remedy when there are so many other equally good, and their use unattended by such dangers. Williams, of Boston, is the only authority I have consulted who takes this common-sense view of the matter."

In advocating mild treatment for the ophthalmia of new-born children, I neither stand alone, nor, on the other hand, do I claim unanimous consent. Of course I am well aware that many able authors advise the use of the *lapis mitigatus*. But many equally judicious men prefer other means. My own mind is fully persuaded; and I feel justified in choosing a method marked by "*simplicity*, *painlessness*, and *good results*,"[4] and in asking the profession to let the babies off easy.

[1] Wells, Diseases of the Eye, page 159.

[2] Stellwag von Carion, Diseases of the Eye, page 192.

[3] Mathewson, Notes on Ophthalmic Practice. New York Medical Record, November 16, 1874.

[4] Vide letter above inserted.

RECENT PROGRESS IN ANATOMY.[1]

BY THOMAS DWIGHT, JR., M. D.

OSTEOLOGY.

The Spinal Column. — Dr. Bardeleben's monograph[2] on the struct
of the vertebræ will be considered a valuable contribution to scie
for although much that it contains is not new here, it is so in Germ
where it is generally believed that Meyer in his Architectur der S
giosa, published in 1867, was the first to show that the cancellous tissu
bone was constructed according to architectural principles. Bardele
has discovered that the idea is enunciated by Professor Humphrey in
work on the Human Skeleton, published in 1858, but is not aware
it was then far from new. It is interesting to observe that the
Professor Wyman, in his paper presented on November 7, 1849,
published in the sixth volume of the Boston Journal of Natural Hist
quoted from earlier authors, and it is also interesting to see that tho
Dr. Bardeleben has carried the matter much more into detail his res
confirm Dr. Wyman's views. In the latter's paper we find the foll
ing passages: "With the exception of the great work of Bourgery
Jacob (Traité Complète de l'Anatomie de l'Homme), and the excell
and instructive Outlines of Human Osteology by F. O. Ward, nearly
systematic treatises are deficient in descriptions of the mechanical arran
ment of the cancellated structure of bones." Also, "Bourgery and Ja
to whom the merit belongs of first calling attention to the subject, h
recognized its interest, and have shown that there exists in severa
the bones a definite relation between the direction of the cancelli
the weight that the bones, of which they form a part, are destined
sustain." And further: "The direction of these fibres in some of
bones of the human skeleton is characteristic, and, it is believed, ha
definite relation to the erect position which is naturally assumed
man alone. These structures are the most conspicuous in the lumb
part of the vertebral column," etc. In spite of their remarkable ind
try and research, we think German scientific workers are open to cri
cism for their want of familiarity with the literature of other countr
than their own. It is far from our intention, however, to disparage t
present monograph, which is very meritorious.

Most of the antero-posterior vertical sections are through the pedi
and the superior articulating processes. The upper and lower bord
of the pedicles are of thick, compact tissue, from which laminæ ta
origin, some of which connect the superior and inferior articulati

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[1] Concluded from page 263.

[2] Beiträge zur Anatomie der Wirbelsäule. Von Dr. Bardeleben. Jena. 1874. Pages
Variations in the Vertebræ and Ribs of Man. By Professor Struthers. Journal of Anat
and Physiology, November, 1874.

processes, while others run through the vertebræ, forming for the most part the transverse bands. A horizontal cut shows them radiating from each pedicle, and crossing one another in the middle of the bone. The main point, however, is as stated by Dr. Wyman, that the body of the bone is composed of stronger vertical "studs" connected by lighter transverse "braces," and this is the case not only in the lumbar region, where he described it, but more or less distinctly throughout the column. The bodies of the sacral vertebræ are on the same plan, but particularly in the first are numerous and strong trabeculæ running outward to the lateral surfaces. We have not space to discuss the part of the work relating to comparative anatomy, but may say that the vertebræ of quadrupeds, contrary to recent views, present marked modifications, and that the structure of the spongy tissue has a teleological rather than a homological signification.

The author has weighed very carefully the vertebræ, excepting the irregular atlas and axis, of several skeletons, and finds a regular increase in weight from above downward, excepting at two points. The second and third dorsal and the fourth lumbar are each lighter than the one above. The fourth and fifth dorsal, though increasing regularly, do not equal the first. The book is illustrated by really admirable photographs.

Professor Struthers's analysis of many cases of varieties of the spine and ribs is very valuable, as it enables us to form some idea of the frequency of particular variations. We can refer to but one or two of the more interesting discussions. Several cases of cervical ribs attached to the seventh vertebra are minutely described, but offer nothing very new, although three cases of diagnosis of this anomaly during life are interesting. It is important to be aware of this possibility, for otherwise an extra rib may be mistaken for a morbid growth; and moreover, if the rib be more than rudimentary, the relations of the subclavian artery, which usually passes over it, are considerably modified. The case reported by Mr. Wilkes to Professor Struthers deserves to be reproduced, at least in part. The patient was a thin woman, fifty-six years old. "Mr. Wilkes noticed a very prominent knob in the middle of the left posterior triangle, and recognized it to be a cervical rib, an opinion in which his colleagues concur. The prominence ends as a knob of bone, the size of the last division of an adult man's thumb; projects boldly outwards and forwards, and from the under surface of the knob a hard continuation can be traced to a part beneath, apparently the first rib. The distance of the knob from the spine of the seventh cervical vertebra was four and one half inches; from the middle of the neck, in front, three inches; from the centre of the clavicle, the arm natural, two inches; when the arm was raised, one inch; from the knob to the left sterno-clavicular articulation, three and one fourth nches; to the end of the acromion, five inches.

"The subclavian artery seems raised quite two inches above the clavicle, and is most dangerously situated for injury. In its third stage, traced upwards and inwards from the middle of the clavicle to the knob, the artery is seen pulsating, as if subcutaneous, and might easily be mistaken for an aneurismal dilatation. Above and external and somewhat posterior to it are felt the cords of the brachial plexus of nerves. In the situation of the knob the pulsation is lost, leaving the position of the artery here somewhat uncertain. To the inner side of the scalenus anticus is felt the connecting bond between the cervical rib and the first thoracic rib, and then the first stage of the artery, outward pressure on which stops the circulation in the third stage, and also the radial pulse." A similar but smaller prominence was felt on the right side.

Text-books on anatomy are not agreed as to whether the ninth dorsal vertebra bears a part of a facet for the head of the tenth rib, and if not, whether the facet on the tenth is entire. Struthers has examined twenty-one sets of otherwise normal vertebræ to elucidate this point, with the following result. In nine, or perhaps eleven (for some were doubtful), the ninth had no demi-facet below on either side, while it had one on both sides certainly in three, and on one side certainly in seven. The facet on the tenth was not complete (without the fibro-cartilage) in seventeen of the twenty-one.

There are many interesting observations on variations of number in the lumbar, sacral and coccygeal vertebræ, but embryological researche are, we think, necessary to throw much light on this difficult question.

Alleged Rotation of the Ulna.[1] — Though this paper is hardly in plac in a report on the progress of anatomy, we will venture to discuss briefly, inasmuch as it has been pretty generally quoted without, as f as we know, any adverse criticism. Dr. Lecomte holds that both bon take part in the rotation of the fore-arm. His demonstration consists inclosing the wrist in a metal ring large enough to allow it to turn (thumb and forefinger of the other hand will do as well), and in notic that as the hand is rotated the end of the ulna undoubtedly changes place. There is no denying that the effect is very remarkable, and it is hard to believe that the ulna does not move; but the follo experiment, which we have tried several times, shows conclusively the appearance is deceptive. Rotate the arm of a cadaver, and ob the same apparent movement of the bone that is seen in life; then a small incision down to the bone on the styloid process of the and drive a large pin firmly in. On fixing the humerus and rep the rotation, it will be seen that the pin does not move.

TEETH.

The last chapter of Dr. Harrison Allen's work on the Facial is devoted to an attempt to apply the principles of evolutior nomenclature of the teeth of a single dental formula. In other words, the author, if we understand him aright, wishes to show that the more complicated teeth consist solely of aggregations of the elements that compose the simpler ones.

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[1] A paper by Dr. O. Lecomte, in the Archives Générales de Médecine, August

As is well known, there is in certain animals a band of dental substance on the side of the tooth, called the cingulum, which, as it is rudimentary in man, Dr. Allen proposes to call the cingule. In the incisors and canines it can be pretty clearly seen on the posterior surface; in the bicuspids it becomes larger, and, having a fang under it, it is really a cusp, technically the bicuspid cusp, as it is from its presence that the tooth derives its name. The marked development of a new cingule, and the appearance of still another, converts a bicuspid of the upper jaw into a superior molar; while in the lower jaw two fully and one imperfectly developed cingules are necessary to form an inferior molar. The shape of the wisdom teeth is attributed to reversion. The idea is certainly ingenious and suggestive, but, as is the case with applications of the evolution theory in general, there are some rather large links missing.

HEART.

Development of the Septum. — Though Rokitansky's[1] recent admirable monograph is, as a whole, pathological rather than anatomical, the points relating to development may very properly be referred to here. According to Rokitansky, the septum of the ventricles is to be divided into three parts: the anterior, the membranous, and the posterior. To follow the description, let the reader imagine himself to be looking upward into the heart, from which the apex and the greater part of the ventricular walls have been removed. In front, coming from the right, is to be seen the conus arteriosus, leading to the pulmonary artery. Nearly behind it is the origin of the aorta, and behind this the cavity of the left ventricle. The right ventricle extends forward beside the beginning of the aorta. The posterior septum runs forward to the right side of the aorta, between which and the right ventricle is the membranous septum. The anterior septum curves forward and to the left, lying at first between the conus and the aorta, and later between the aorta and the pulmonary artery. Thus it appears that the upper part of the septum of the ventricles describes nearly a fourth of a circle. The membranous portion is small and triangular, situated on the upper part of the septum, as above described. The septum is of two layers throughout, being composed of fibres from each ventricle. The auricular septum is divided into the membranous and fleshy parts, each of which, however, contains muscular fibres. The membranous portion is that forming the floor of the fossa ovalis. The description, though minute, presents little that is new, and we pass at once to the most important part, that of development. The septum of the ventricles begins as a crescentic fold from the apex of the heart, and expands upward so as to cross the auriculo-ventricular slit. The anterior portion goes to form the left wall of the truncus arteriosus (later to be divided into the two great arteries), and would thus shut it out from the left ventricle did not an opening in the septum remain below the origin of the truncus. The septum of the truncus grows from above downward, and in a way to put the pulmonary artery in front and somewhat to the left, and the aorta behind and somewhat to the right. Ultimately a growth from the border of the defect in the septum of the ventricles runs to meet the partition wall of the arteries in a way to connect the aorta with the left ventricle. The ventricular septum is probably complete in man at the end of the second or the beginning of the third month.

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[1] Die Defecte der Scheidewände des Hertzens. Vienna. 1875. Page 156.

Rokitansky's investigations must change greatly our views on the development of the auricular septum. It is usually regarded as made of two folds that meet at the edges but not in the middle, leaving the foramen ovale, which was closed at birth by the complete attachment of a secondary membrane. The reverse is the case. The membranous portion is the earliest provisional septum. It never presented a round central orifice, but was full of irregular perforations that permitted the blood to pass from the right to the left auricle. In the third month, — we imagine it may be earlier, but our author does not give us precise data, — the permanent fleshy septum appears about the border of the provisional membrane, and, growing in two main folds, an anterior and a posterior one, finally forms the annulus ovalis around a central persistent part of the temporary septum, which, as its imperfections are filled up, closes, to use the author's expression, an opening which never existed.

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TYSON ON THE EXAMINATION OF URINE.[1]

It is very refreshing to see a thoroughly good book on the urine appear in the English language, and Dr. Tyson by writing such a work has placed the profession under great obligation. The need of a guide for the complete analysis of urine, that is, such an analysis as the general practitioner should be able to perform in his office, has long been felt both by the physician and by the medical student.

Dr. Tyson's book is not a complete scientific treatise on the urine, but is just what its title implies, a practical "guide." Most of the so-called "guides" which have been issued of late upon this subject have contained all of the errors of works published fifteen or twenty years ago. For instance, it is by no means uncommon to find the advice given in testing the urine for albumen to combine the heat and nitric acid tests, by which procedure the detection of the albumen, if it is present only in small amount, is quite sure to be prevented. We have no such criticisms to make upon the present work. In fact, it is so nearly perfect, in our estimation, that we can find scarcely any opportunity for criticism.

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[1] *A Guide to the Practical Examination of Urine.* For the Use of Physicians and Students. By JAMES TYSON, M. D. Philadelphia: Lindsay and Blakiston. 1875.

It commences with a few remarks upon the secretion of the urine, and upon the apparatus and reagents required to make a complete analysis. The general physical and chemical characters of the urine are next treated, and all of the important points are thoroughly considered. Next, the various normal and abnormal constituents are taken up, and the best tests for each are concisely described and explained, together with the methods for estimating their amounts quantitatively whenever a quantitative estimation is important. The clinical significance of an increase or diminution in the amount of the normal constituents, and of the presence of the abnormal, is also spoken of. The processes which are employed throughout the work are chiefly those of the Vienna school.

In describing Böttger's test for sugar, the action of albumen, if present, upon the subnitrate of bismuth, namely, to produce the black sulphide of bismuth, which may readily be mistaken for the metallic bismuth produced by the reducing action of the sugar, is not mentioned.

For the quantitative estimation of sugar in diabetic urine, both Fehling's and Pavy's solutions are given. It is not recommended, however, to keep the solution of sulphate of copper in one bottle and the remaining constituents in another, in order to prevent the spontaneous reduction of a portion of the cupric oxide, which will take place in the original Fehling's solution in spite of all precautions.

In performing the nitric acid test for albumen according to Heller's method, and Heller's test for the biliary pigments, a test-tube is recommended; and in the tests for urophæin and indican, a beaker. In all of these tests we very much prefer to use a smooth wine-glass, like that known as the "Collamore" wine-glass, since it is much easier to manipulate, and all of these glasses have the same calibre.

We must differ from Dr. Tyson in the statement made upon page 60 in regard to Heller's test for indican. He says, "If, however, the violet color does not appear in one or two minutes, the indican is not increased." We certainly have seen specimens of urine in which the violet color did not appear in from fifteen to thirty minutes, and then it gradually deepened until a very deep purple or even blue was reached. In one of these specimens the indican was found, by quantitative estimation by Jaffé's method, to be increased about twenty-five times as compared with the normal amount.

The only other criticism which we have to offer is the omission of any mention of Sonnenschein's reagent (a saturated solution of sodic tungstate rendered acid with acetic acid) for the detection of blood pigment when in solution in the urine. This reagent is, in our opinion, far preferable to all others for the detection of blood pigment in solution, whether it be in the form of hæmoglobin, methæmoglobin, or hæmatin.

Throughout the book the new chemical nomenclature and the metric system of weights and measures are used, and at the end of the work are given valuable tables for the reduction of the metric system into the English, and *vice versâ.* Heller's tables for recording urinary analyses are also given, with slight modification.

The book ends with a short chapter upon the "differential diagnosis of renal diseases," and two pages upon the analysis of urinary calculi. No systematic method for the detection of *all* the constituents of a calculus is given, but only those tests by which the principal component can be determined. The means for detecting the rarer constituents also are not given.

In conclusion, we are much pleased to be able to heartily recommend Dr. Tyson's book to the profession, and to assure our readers that they will find it all that it pretends to be, a thorough and complete "guide to the practical examination of urine." E. S. W.

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REGISTRATION REPORTS.

One not specially interested in the subject of the registration of vital statistics, although perhaps alive to its importance, would be fairly appalled by the solid array of tables and figures which the annual reports on this subject contain. Even a casual observer will nevertheless discover many interesting and instructive facts in these documents. That the importance of such statistics from a sanitary point of view is becoming yearly more fully appreciated is shown by the increased care in the preparation of the reports, and the changes in the laws regulating registration. In illustration of this, we quote the introductory remarks made by Dr. Draper in the thirty-second registration report of the commonwealth of Massachusetts, just issued: "The utility of accumulating such a mass of figures from year to year is no longer questioned. Registration supplies an array of facts from which reliable conclusions can be drawn, for the benefit of the whole people. The growth and renewal of population; the inroads of disease and physical decay; the wave-like succession of epidemic diseases; the more constant and uniform operation of the wasting maladies that are always with us; the conditions, preventable or inevitable, affecting the mortality from the great class of zymotic disorders, — all these find their most significant illustration in the statistics available through the agency of the registration laws."

Under these circumstances the statistics should be collected with the greatest accuracy, and the task of presenting the conclusions to be drawn from them should be intrusted to those who are specially qualified therefor. The three reports before us [1] give evidence of praiseworthy care and discrimination in their editorial preparation. The necessity for such careful supervision is well illustrated by a consideration of some of the false inferences which it is possible to draw from the statistics of a single year when studied by themselves. For example, in some towns the average age at death is always enormously greater than in others, and yet if some should examine the returns for single years from these same towns, they would be alarmed at the great mortality. If we go back a few years, we find that the average age at death in Suffolk County was 25.65 years; in the same year the average age at death in Plymouth was over 40 years, and in Nantucket it was 54.96, or more than twice as great as in Suffolk. Was there that difference in the healthfulness of the three counties? By no means. The tendency, rather the necessity, is for young men and women at the age of puberty to migrate from every county outside of Suffolk to the metropolitan, or to some densely settled manufacturing district, that they may earn a living. Just in the same way the young men of independence in New Hampshire and Vermont, and in the country towns of this State, find it absolutely necessary to desert their farms for city lives, or for the farms of Southern and Western States, where they can do more than scrape a mere living from the earth. Into cities like Boston these young men come at an early age for mercantile business. Into cities like Providence and Lowell and Fall River another class hasten, for the purpose of building fortunes or earning a living in manufacturing employments. To both the foreigner comes, whose children are got at an early age and frequently with great rapidity; in the manufacturing towns these are more numerous and more closely packed, and in consequence die at an earlier age than elsewhere.

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[1] Thirty-Second Report relating to the Registry of Births, Marriages, and Deaths in Massachusetts, for the Year ending December 31, 1873. With Editorial Remarks by F. W. Draper, M. D.

Nineteenth Annual Report upon the Births, Marriages, and Deaths in the City of Providence, for the Year 1873. By Edwin M. Snow, M. D.

Twenty-First Registration Report of Rhode Island, for the Year 1873. Edited by E. T. Caswell, M. D.

We can only say, in conclusion, that the reports are useful, and that they are a part of the work necessary to be done in increasing the healthfulness of both town and city. It is not every one who can spare time to look them over; but members of city and town governments should do so, and use them as steps towards gaining information which will aid in promoting the welfare of the people.

SALICYLIC ACID.

We have received from Professor Horsford the following abstract of two papers just received from Professor Kolbe, containing the results of experiments made at Leipsic with salicylic acid.

In the lying-in hospital of Leipsic, salicylic acid has been employed to the exclusion of carbolic acid since July last: for disinfection of the hands, in vaginal douching, application to ulcera puerperalia, etc., in solution in water of one part in three hundred to one part in nine hundred, or as a powder mixed with starch in proportion of one part in five. This use of salicylic acid has thus far been attended with such successful results that it is recommended in the strongest terms for use in obstetric practice, by the authorities of the hospital.

Professor Kolbe suggests that physicians, and especially hospital physicians, should study the action of salicylic acid as a medicine, whether and in what quantity of larger or lesser doses it will influence scarlet fever, diphtheria eruptions, syphilis, dysentery, typhus, cholera, etc.; and whether it may be used against pyæmia and the bites of dogs; also whether it may not be used advantageously among horses, cattle, and sheep to prevent glanders, foot-rot, mortification, and so forth.

Kolbe, to prove the innocuousness of salicylic acid, took for several consecutive days half a gramme (seven and a half grains) daily in water, one part to one thousand, without the slightest observable unpleasant effect. After an interval of eight days he took for five consecutive days one gramme (fifteen and a half grains) daily, and then for two days one and a half grammes, (twenty-three grains) in alcohol each day. The digestion was perfectly normal; no trace of salicylic acid could be found in the urine or fæces. (The test is perchloride of iron, which gives an intense violet color.) At no time was there the slightest discomfort.

The experiment was repeated by Professor Kolbe and eight of his students, all at the same time. Each took on the first day one gramme, and on the second day one and a quarter grammes, of salicylic acid. Not one of them was able to observe the slightest derangement of any organs.

The acid in diluted solution is employed to wash the feet to prevent the offensiveness arising from the butyric, valerianic, and other related acids in sweat. It is also used as a constituent in tooth-powder, and for a liquor to wash the mouth.

Professor Wunderlich, of the University Hospital, Leipsic, recommends a medicinal preparation of salicylic acid for internal use, consisting of

Acidi salicylici	1	gramme
Olei amygdalæ dulcis	20	grammes.
Gummi Arabici	10	"
Syrupi amygdalæ	25	"
Aquæ florum aurantii	45	"

Kolbe proved by experiment in the bath that the salicylic acid is very little if at all absorbed through the skin.

C. Neubauer (a pupil of Professor Kolbe) has experimented with salicylic acid to determine the quantity necessary to arrest fermentation in solutions o sugar and in new wine. He found that one gramme of salicylic acid is adequate to make 0.98 gramme of press yeast (weighed dry) in ten litres (abou ten quarts) of new wine incapable of fermentation.

Kolbe found that $\frac{1}{10000}$ of salicylic acid would keep river or pond water i casks perfectly fresh (the experiments continued four weeks in a warm room where without the acid the water acquired unpleasant taste. This quality wi make the salicylic acid serviceable in preserving water on long sea-voyages.

MEDICAL NOTES.

— At a recent meeting of the Trustees of the Massachusetts General Hospital, Dr. Charles B. Porter was appointed visiting surgeon, and Dr. T. B Curtis surgeon to out-patients.

— Dr. Waldau, of Berlin, assistant of the late Von Graefe, received twenty-five thousand thalers from the banker Bleichroeder for a cataract operation.

— A drug clerk in Philadelphia took twenty drops of tincture of aconite for a cold. He died in an hour and a half.

SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

OPERATIONS were performed under ether in the following cases during the week ending February 27 : —

1. Tumor of nates and vagina. 2. Scrofulous testicle. 3. Incised wound of hand. 4. Condylomata of anus and penis. 5. Compound comminuted fracture of leg, with mortification of foot (amputation). 6. Cancer of breast. 7. Felon. 8. Abscess (two cases). 9. Necrosis of humerus. 10. Caries of tarsus. 11. Cancer of lip. 12. Club-foot. 13. Sinus of arm. 14. Ingrowing toe-nail. 15. Vesico-vaginal fistula. 16. Railroad injury of foot (amputation). 17. Frost-bitten fingers and toes.

1. *Fibro-Cellular Tumor of Nates and Vagina.* — The age of this patient was thirty-one years. Two years ago she noticed a swelling in the left groin, which gradually moved downward, involving the left labium and buttock. She has now a tumor over the tuberosity of the left ischium of the size of a cocoanut. There has been no pain. Upon examination, the tumor is oval, and consists of several lobes slipping about beneath the integument, suggesting hypertrophied omental fat moving freely in a hernial sac. The tumor extends upward by the side of the vagina as high as the os uteri, and almost fluctuates. An aspirator has failed to discover any fluid. The integuments are everywhere healthy. An exploratory incision was made by Dr. Bigelow upon the tumor of the nates. As the fat was incised, the inclosed lobes slipped loosely from side to side until the incision, instead of opening a sac, penetrated their fibro-cellular substance. These lobes were inseparable from the surrounding tissue, but were merged in it, being loose and succulent upon their surface. They were slowly dissected upward beneath the vagina, and the operation was terminated chiefly on account of the abundant hæmorrhage. In fact, wherever the fibres of the tissue were stripped or torn, their interstices contained long parallel and wavy vessels. In this, the tumor differed from another alluded to below. As the most effectual means of strangulating the neck of the growth, a wire écraseur was drawn tightly around it and left in place. The mass sloughed off in a few days, the fœtor being only partially checked by the liberal use of salicylic acid. On the third day the patient complained of pain in the left knee, and septicæmia was suspected. Of this she died on the seventh day after the operation. On examination the knee was found to contain pus, while the visceral changes were marked. The tumor proved to have its origin in a

slightly thickened cellular tissue between the vagina and rectum, and behin the latter; very little of it, however, remained. Its microscopical structur was mainly an imperfectly formed fibroid tissue. In fact, this growth has bee very completely described by Paget as occurring about the vagina and scrotum Volume LXX., page 169, of this JOURNAL contains the description of a tumo of about this size, removed from the scrotum of a man who recovered from th operation. This tumor had its origin near the prostate gland. In connectio with the septicæmia in the present case, it may be stated that the patient wa accustomed to the use of ardent spirits, and failed with unusual rapidity.

5. *Compound Comminuted Fracture of Leg, with Mortification of the Foo* — A bank of earth fell upon the patient, a man twenty-two years old, six day before he entered the hospital, crushing the foot and fracturing the tibia in it lower third. On entrance, gangrene of the foot had commenced, but no lin of demarcation existed. The whole limb was swollen as high as the groin, an covered with an erysipelatous blush. Six days after, a line of demarcation ha formed at the ankle, and amputation was performed at this point through th infiltrated tissues by Dr. Cabot.

9. *Necrosis of Humerus* in a man twenty-five years of age, the disease bein of seventeen months' duration, without known cause. It occupied the lowe two thirds of the shaft of the humerus, which was greatly enlarged and pe forated by four sinuses; between two of these sinuses was the track of th musculo-spiral nerve. It was therefore necessary to attack the bone throug the healthy triceps muscle on its outer aspect. The periosteum was stripped the sides of the wound, and the surface of the new bone exposed. A trephi on a bit stock was applied at two points only a couple of inches apart, to av the nerve above and the elbow below. Disks were removed of the thic ness of more than half an inch and the holes united by the chisel and mall Through this deep and narrow opening a sequestrum was at length remove measuring two and a half inches in length and comprising the whole circu ference of the old shaft. The readiest way of uniting trephine holes whe they are farther apart than in this instance is by the middle-sized scie à mo lette, the small saw not cutting fast enough, while it is impossible to hold th largest one. A clean orifice into the bone cavity is thus made with paralle sides and round ends. A practical question often is whether an attempt shall be made upon the sequestrum before it is loose. Dr. Bigelow believes it better as a rule to wait until the bone is detached. In a young and healthy subject, necrosis of the humerus and tibia is rapidly eliminated and the result is then most satisfactory; on the other hand, in an older or feebler subject, and generally in the femur, the process is very slow. When the sequestrum is loose, the operation is a relief to the part; on the other hand, an operation upon bone not yet detached frequently produces a high degree of inflammation, which is in the femur sometimes fatal; and we can only guess as to much of what is dead and what is alive. In default of other signs, the mobility of a large sequestrum may be approximately inferred by bleeding at one sinus when a probe has been introduced at another distant one.

16. *Railroad Injury of Foot.* — A young man whose foot was crushed b railroad injury (see last JOURNAL, Massachusetts General Hospital Repor

case 4) was operated upon. The two small toes were gone, as also the integuments of the foot above and below, on a line with these toes and as high as the instep. It being impossible that this surface should heal over, so as to admit of the patient's walking, it became necessary to sacrifice the anterior half of the foot to secure integuments to cover the rest. Dr. Bigelow believed it better practice on the whole to divide the tarsus with a saw rather than by the disarticulations of Lisfranc or of Chopart.

H. H. A. BEACH, M. D., Surgeon to Out-Patients.

Urethral Strawberry Tumor. — MESSRS. EDITORS. In connection with the account of a case of this affection in your last number (Massachusetts General Hospital Report), it is proper to say that Dr. Blodgett's microscopical report was more complete than is there stated. The growth really took the form of papilloma; it consisted principally of granulation tissue with some normal or highly hypertrophied connective tissue, but was formed into numerous papillæ furnished with large, looping blood-vessels, of which several sometimes ramified in the same papilla. The external surface was covered with flat epithelium of a considerable thickness in places which were protected from injury, but which was easily detached from its place and separated into its single cells by the action of the fluid in which the section was suspended, in parts where the epithelium was near the border of the field. It seemed, therefore, to be a papilloma of the simple variety, its erectile power depending upon the numerous large capillaries ramifying in every part; the growth containing of course, also, other larger vessels. The coincidence of a sensitive tumor before mentioned of the male urethra with warts upon the gland, corroborates the results of Dr. Blodgett's examination. H. H. A. B.

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SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER AND THORNDIKE.]

THE following operations were performed on Tuesday and Friday, February 23, and 26, 1875: —

1. Urinary fistulæ. 2. Hypertrophy of clitoris. 3. Removal of testicle. 4. Fistula in ano. 5. Plastic operation. 6. Abscess in axilla. 7. Radical cure of hydrocele. 8. Radical cure of hydrocele of the cord. 9. Necrosis of femur. 10. Mammary abscess. 11. Necrosis of lower jaw. 12. Amputation of toe. 13. Necrosis of tibia.

1. *Urinary Fistulæ.* — A man, thirty-nine years of age, fell upon the ice a year ago. He was stunned for a few moments, and does not know whether he struck upon his side or back. In a very short time he was able to get up and walk, but when he urinated there was some pain, and he passed a little blood. These symptoms passed off in a little while, and he was in his usual health till about six months ago, when he began to have pain in the region of the bladder. An abscess formed and broke an inch above Poupart's ligament, and two inches to the left of the median line. This was soon followed by another abscess, on the upper and inner side of the left thigh. When he entered

the hospital both of these openings were discharging urine, but only when h attempted to empty his bladder. There was no infiltration of urine, and n stricture of the urethra; nor had there ever been any. Denuded bone could b felt in both sinuses; probably some part of the rami of the pubes and ischium

The patient having been etherized, Dr. Cheever passed a full-sized ste sound into the bladder without difficulty. In so doing, the sound struck upo a hard, rough substance, feeling like calculus or bone, between the bulb and th prostate. The finger in the rectum found the membranous urethra norma and the prostate slightly enlarged. A probe was passed nearly perpendicularl down through the abdominal sinus for four inches, and struck roughened bon A second probe was passed up through the thigh sinus for four inches, an also touched dead bone. It was evident that these two sinuses met near th rami of the pubes and ischium.

The sinuses were now slit up. The upper one was found to lead down be hind the pubes, and connect with the lower through an opening in the rami o the pubes and ischium on the left side. A loose sequestrum, an inch lon was removed from the lower wound. A thin scale of bone, a third of an inc long, was found in the bulbous portion of the urethra, and was removed in th channel of a grooved staff without cutting. No opening could be found in th urethra communicating with the fistulæ.

The violent fall, the bleeding from the urethra, and the size of the seque trum render it probable that the ramus of the pubes was partially fracture and the membranous urethra pierced with a spiculum of bone. Subsequentl urinary abscess, followed by necrosis, became slowly developed.

2. *Hypertrophy of the Clitoris.* — The patient was a young white woma The growth was of nine months' duration. It was a soft, lobulated mass wi a long neck. The principal tumor was as large as a small orange, and hu down about four inches. The labia majora were œdematous, and there we several warty growths and condylomata about the clitoris and nymphæ.

Dr. Thorndike removed the enlarged clitoris with the écraseur. The hæ orrhage was so slight that no ligatures were required. The vegetations w cut off with scissors. The raw surfaces were touched with nitric acid, a cold water dressing was ordered.

3. *Removal of the Testicle.* — The patient is nineteen years of age, and parently healthy. He has never received any injury upon the scrotum, a there is no history of venereal disease. The right testis was removed f years ago for scrofulous disease. The left began to get sore and painful fo or five months ago. The gland was swollen, tender, and discharging pus fro two or three deep sinuses. The patient was unable to work, and was dete mined to have it removed. Dr. Thorndike performed castration in the usua manner, saving all of the scrotum. The hæmorrhage was slight. The wound was closed with sutures.

7 and 8. *Hydrocele.* — Dr. Thorndike drew off the contents of the hydrocele, and injected the sac with pure tincture of iodine, but did not allow it all to remain.

The hydrocele of the cord was laid open with the knife, and lightly packed with charpie.

GEO. W. GAY, M. D.

LETTER FROM NEW YORK.

[FROM OUR OWN CORRESPONDENT.]

Messrs. Editors, — Quite an elaborate paper was read last November before the Academy of Medicine, by Dr. E. C. Seguin, on Acute, Sub-Acute, and Chronic Spinal Paralysis in Adults. This essay has just been printed "for private circulation only," together with a clinical lecture on Acute Spinal Paralysis in Children, making a book of fifty-seven pages. According to the author, the symptoms of acute spinal paralysis in adults consist in a paresis or akinesis affecting the muscles of rational life, accompanied by atrophy and early loss of electro-muscular contractility in the paralyzed muscles, with absence of extensive or permanent anæsthesia, spinal epilepsy, bed-sores, urinary incontinence, or sphincter-ani palsy. The acute form resembles infantile spinal paralysis; the akinesis is developed in from one to three days, it has the same character, and affects the same muscles. In the sub-acute form the affection is developed more gradually, extending over a period of from ten to twenty days. The chronic form resembles, in many ways, progressive muscular atrophy, but in the latter disease the wasting affects portions of muscles, and never muscular groups, as in spinal palsy. Again, progressive muscular atrophy is apt to strike homologous parts, and the electro-muscular contractility is preserved in the muscles which are the seat of wasting, as long as any muscular fibre remains; whereas, in spinal paralysis the reaction to the faradic current is lost very early. The pathological lesion consists of "a granular degeneration of the ganglion-cells of the anterior horn."

The treatment recommended in the early stage of the acute form consists in counter-irritation to the spinal region, with dry cups, the actual cautery, and leeches; ergot and belladonna are to be given internally, the latter so as to produce slight throat and eye symptoms; at the same time good nourishment is necessary. Later, galvanism is used so as to produce contraction in the paralyzed muscles.

Small-pox is quite prevalent in the city this winter. We have an epidemic here every three or four years. Last summer more cases were reported than is usual for that season; the small-pox hospital on Blackwell's Island, which during the warm weather usually has from ten to twenty patients, averaged about sixty; there are now about two hundred and fifty cases there. The disease first began in July, on the east side of the city, at about One-Hundred-and-Nineteenth Street; from that point it gradually worked down until, in October, cases were received from all the thickly settled portions of the city. I see by the daily papers that the Board of Health, to whose care the small-pox hospital was transferred by the Commissioners of Charity and Correction last month, has placed the nursing in charge of Sisters of Charity.

We have had an unusual amount of diphtheria during the past year, with a very high rate of mortality. During the last week in January 113 cases were reported, and for the first week in February, 126 cases. In 1872 there were 446 deaths from this disease, while in 1873 they reached 1151. Last month 210 deaths were assigned to this cause. The disease seems to be confined to certain localities in the city.

The medical profession here has long felt the want of a suitable building where the different societies could hold their meetings. Heretofore, one of the lecture-rooms of the College of Physicians and Surgeons has been used for this purpose, but it is inconvenient and unattractive. The Academy of Medicine has had for some time the subject of purchasing a building under consideration, and within the past month has obtained the house No. 12 West Thirty-First Street; they will not, however, get possession of it until the first of May. Certain necessary alterations will have to be made, which will not be completed until late in the summer. Dr. Purple, the present president, has given to the Academy his collection of American medical journals, the most complete, I believe, in the country; this, together with about twelve hundred volumes now owned by the society, will form the nucleus of a library.

In speaking of libraries, I must mention that of the Society of the New York Hospital, recently opened in its new quarters, No. 8 West Sixteenth Street. Last winter the Board of Governors purchased the property known as the Thorn mansion, — situated between Fifth and Sixth Avenues, and extending from Fifteenth to Sixteenth Street, having a frontage of one hundred and twenty-five feet on Sixteenth and seventy-five on Fifteenth Street, — for $200,000; since then they have obtained four more lots on Fifteenth Street, giving a total frontage of one hundred and seventy-five feet on that street. On this property, and on the Fifteenth Street side of it, they intend putting up a hospital building during the present year, to accommodate about ninety patients.

The house situated on Sixteenth Street is about sixty by eighty feet; it has been put in thorough order. The first floor is to be used for the executive purposes of the hospital. The second floor, consisting of seven large and four or five smaller rooms, has been fitted up for the library and pathological cabinet of the old New York Hospital. The former occupies four connecting rooms on the south side of the building. The largest is in the centre, about twenty by twenty-five feet in size, and is devoted to standard works, encyclopædias, etc., and the office of the librarian; the room on the left as you enter (eighteen by twenty feet) is filled with English, French, German, and American journals, and English hospital and society reports; on the right of the main room is another (fifteen by twenty feet), which contains rare books of reference, of which the society has a valuable collection; connecting with this is another room. All of these rooms are handsomely carpeted, fitted up with black walnut cases with glass sliding doors, and contain tables, etc. They are well lighted, and the whole building is heated by steam; in fact, everything has been done to make the place comfortable and attractive. Formerly only the attending staff and graduates of the hospital were allowed to take books out, but since October last it has been made a free library of reference, and is open daily from 10 to 12 A. M., from 1.30 to 5 P. M., and from 7 to 10 in the evening. It contains about ten thousand volumes, including the valuable collection of rare books, the legacy of John Watson, M. D., a former surgeon to the hospital. The library is especially rich in English medical journals and hospital reports; has a good collection of French and German journals, but is poor in American periodicals. It has but just obtained a full set of the Boston Medical and Surgical Journal. Thirty-eight English journals and serials, twelve German, seventeen French, and nine American periodicals are now taken; constant additions are being made to the library of monographs, standard works, etc., as soon as they are issued. The librarian, Dr. John L. Vandervoort, has held the position for nearly forty years, and to his labor is due the fact that the library is in such a flourishing condition, being one of the largest medical libraries in the country.

The first number of A Series of American Clinical Lectures appeared the first of the month; it is on Disease of the Hip-Joint, and the author is Dr. Lewis A. Sayre. The next number will be issued the first of March, and will contain a lecture by Dr. A. Jacobi on Acute Rheumatism in Children. These pamphlets are published by G. P. Putnam's Sons under the editorial control of Dr. E. C. Seguin.

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WEEKLY BULLETIN OF PREVALENT DISEASES.

The following is a bulletin of the diseases prevalent in Massachusetts during the week ending March 6, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: influenza and bronchitis.

In the Connecticut Valley: influenza, bronchitis, pneumonia, rheumatism, and whooping-cough. Small-pox in Holyoke — a few cases only.

In Worcester County: bronchitis, influenza, pneumonia, measles, rheumatism, and scarlatina. Measles and scarlatina have subsided considerably.

In the Northeastern section: influenza, bronchitis, pneumonia, scarlatina, and rheumatism. A fatal case of cerebro-spinal meningitis in Natick, and one in Sherborn.

In the Metropolitan district: bronchitis, measles, pneumonia, rheumatism, influenza, and scarlatina. Except bronchitis and scarlatina, all the above diseases are less prevalent than they were last week.

In the Southeastern counties and the islands: bronchitis, influenza, pneumonia, measles, and whooping-cough. Measles has increased in prevalence.

Bronchitis and pneumonia are the most prevalent diseases in the State; influenza, rheumatism, and scarlatina have the next place in the scale. The epidemic of influenza is steadily subsiding; scarlatina is increasing in prevalence; so also is whooping-cough; all the other diseases are less rife. The type of all the diseases except pneumonia is reported to be mild.

Measles continues to have its field of maximum prevalence in Boston and the vicinity; scarlatina is most prevalent in Middlesex and Essex; whooping-cough on the Cape. F. W. Draper, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING FEBRUARY 27,

	Estimated Population.	Total Mortality for the Week.	Annual Death- per 1000 during
New York	1,040,000	605	30
Philadelphia	775,000	386	26
Brooklyn	450,000	198	23
Boston	350,000	187	28
Providence	100,000	52	27
Worcester	50,000	27	28
Lowell	50,000	19	20
Cambridge	44,000	17	20
Fall River	34,200	23	35
Lawrence	33,000	15	24
Springfield	33,000	7	11
Lynn	28,000	16	30
Salem	26,000	18	36

BOOKS AND PAMPHLETS RECEIVED.

Lectures on Pathological Anatomy. By Samuel Wilks, M. D., and Walter Moxon, M Second Edition. Philadelphia: Lindsay and Blakiston. 1875. (For sale by James Ca bell.)

On Winter Cough. By Horace Dobell, M. D. Third Edition. Philadelphia: Lin and Blakiston. 1875. (For sale by James Campbell.)

The Coming Medical Man. A Discourse delivered before the New York Academ Medicine. By D. B. St. John Roosa, M. D. New York: D. Appleton & Co. 1875.

Spinal Paralysis of the Adult, Acute, Sub-Acute, and Chronic. By E. C. Seguin, M New York: D. Appleton & Co. 1874.

Forty-Second Annual Report of the Trustees of the State Lunatic Hospital at Worc October, 1874.

Proceedings of the First Annual Meeting of the Eastern Medical Association at Newb N. C. 1875.

Medizinische Jahrbücher herausgegeben von der k. k. Gesellschaft der Aertzte. Red von S. Stricker. Jahrgang, 1874. Heft ii., iii., iv. (From James Campbell.)

Rhode Island Twenty-First Registration Report, 1873.

The Microscope and its Revelations. By William B. Carpenter, M. D., LL. D. Edition. Philadelphia: Lindsay and Blakiston. 1875. (For sale by James Campbell

On Functional Derangements of the Liver; being the Croonian Lectures for 1874. Charles Murchison, M. D., LL. D., F. R. S. New York: William Wood & Co. 1875

A Treatise on Cutaneous Medicine and Diseases of the Skin. By H. S. Purdon, M London: Baillière, Tindall, and Cox. 1874.

The Protoplasmic Theory of Life. By John Drysdale, M. D. Edin., F. R. M. S. don: Baillière, Tindall, and Cox. 1875.

Cholera: How to Prevent and Resist It. By Dr. Max von Pettenkofer. From the Ger by Thomas Whiteside Hime, A. B., M. B., etc. London: Baillière, Tindall, and 1875.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Vol. Acute Infectious Diseases. Albert H. Buck, M. D., Editor of American Edition. York: William Wood & Co. 1875. (From H. D. Brown & Co., Boston.)

The Histology and Histo-Chemistry of Man. By Heinrich Frey, Professor of Med in Zurich. Translated from the Fourth German Edition, by Arthur J. Backer, Surge the Dublin Hospital. New York: D. Appleton & Co. 1875.

THE BOSTON
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ENUCLEATION OF AN INTRA-MURAL UTERINE FIBROID.

BY GEORGE HOLMES BIXBY, M. D.,
Surgeon to St Elizabeth's Hospital for Women.

THROUGH the kindness of Dr. Ordway I was consulted, October 23, 1874, by Mrs. C., of Boston. The patient is forty-eight years old, native of Maine, of long-lived parentage. She has been confined to the bed and lounge most of the time for three years; has been an invalid five years. Menstruation, which first appeared at fifteen, has always been regular, but profuse. She was married at twenty-five and has given birth five times with normal labor and childbed: the first, ten months after marriage; the last, eight years ago. The catamenia were present during the suckling of all the children, the average duration, with a single exception, being fifteen months. Six years ago the menses by any undue exertion were rendered unusually profuse. January, 1871, after a month of anxiety and extra exertion with the sick, a profuse menorrhagia ensued. The hæmorrhage ceased at the end of four days, and after the usual interval the menses recurred in the ordinary quantity, with coagula, until October, 1871, when a profuse menorrhagia again ensued. Since this event, a period of three years, with the exception of short intervals, metrorrhagia has been constant. In the spring of 1872 she suffered from severe bearing-down pains of at least two hours' duration. August 13th, of the present year, a walk of a few yards was followed by severe hæmorrhage. For a year past the discharges have been more or less offensive; for the last three months excessively and constantly so.

At present the patient is in bed. She is thin, sallow, and anæmic; mammæ are atrophied, external genitals normal, inguinal glands unaffected. A profuse sanious and highly offensive discharge escapes from the vulva. Vaginal exploration reveals the vagina healthy, the os uteri dilated to the size of a half-dollar, and filled with an irregular friable mass; labia attenuated but apparently healthy, the mucous surfaces firmly adherent to the mass within the os. Sound enters uterine cavity two and a half inches. Speculum exhibits a grayish-colored mass extruding from the os. Diagnosis: Intra-uterine fibroid in process of spontaneous enucleation.

October 28th, with the assistance of Dr. Wheeler, the operation f the removal of the tumor was undertaken. The rectum and bladd having been previously evacuated, and profound anæsthesia induce the patient was carefully examined by Dr. Wheeler and the diagnos confirmed. I proceeded with the index finger to separate the cervic adhesions to the tumor. These yielded to moderate force, being co paratively recent. As I continued my efforts upward into the uteri cavity, the attachments occupying the posterior and lateral surfaces the tumor offered greater resistance. Increasing somewhat the forc with the aid of bi-manual palpation, I managed to insinuate the extrem ties of the fingers behind and around the tumor, and succeeded in d taching a few more adhesions. Continuing my efforts in the same dire tion, band after band of attachment gave way, and in due time the enti hand was within the uterine cavity. This apparent advantage tend to retard rather than to favor the manipulations; for the violent uteri contractions literally paralyzed the hand, rendering the slightest effo impossible. Compelled absolutely to rest before proceeding further, t manipulations were continued by Dr. Wheeler. Upon resuming, it w evident that much progress had attended Dr. Wheeler's efforts, but fir attachments still held the mass within the uterine cavity. Further effo with the hand within the organ, with or without the aid of bi-manu palpation, having been foiled by the uterine contractions, a pair of lo blunt curved scissors was brought to our assistance. The concave si of the instrument being applied to the convex surface of the tumor, vigorous efforts with the points of the instrument, closed and open, succeeded in separating nearly all the attachments. Seizing the fr extremity of the mass, first with a single hand, then with both, on fir traction the last attachment gave way and the tumor rolled out entir the operation requiring forty minutes. Finding the interior of th uterus quite free, that cavity and the vagina were packed with Sims' styptic cotton, the patient was placed in bed, direction given to emplo an opiate suppository in case of pain after return to consciousness, and the patient left with the nurse.

October 29th. A fair night; complains of pressure in the vicinity of the bladder, which is undoubtedly owing to the presence of the tampon. After partial removal of the packing, urine drawn. Removal of packing completed, it was evident that the hæmorrhage after the operation had been insignificant. There is slight tenderness on pressure over the abdomen. Washed out the vagina with copious injections of carbolized soap and water. Evening, very comfortable, little rise of temperature; injections into uterine cavity and vagina repeated. Nourishment to consist of milk, at the wish of the patient. Vaginal injectio to be used at midnight, use of suppository if required, urine to be voide voluntarily.

October 30th. A quiet night; abdomen less tender, temperature nearly normal; there is a profuse dark and offensive discharge from the vagina. Uterus washed out with a double canula, two quarts of the disinfecting fluid being used by means of a No. 3 fountain syringe, and a winged male catheter of pure rubber left in the uterine cavity for drainage. Injections to be employed by nurse through drainage tube every six hours. P. M. No fever; two ounces of dark matter have passed through the tube during the day; uterus washed out with double canula, drainage tube cleansed and replaced.

October 31st. A good night; patient in excellent spirits, discharge less, with evidences of pus. Injection with double canula repeated. P. M. A very comfortable day; discharge continues but is less profuse; injections repeated, drainage tube cleansed and replaced.

November 1st. A night of quiet sleep, no tenderness on pressure over the abdomen, evidences of laudable pus in the discharge; copious injections continued.

November 2d. Doing well; injections continued.

November 3d. Rectal enema produced a free dejection unattended with discomfort, with the exception of slight exhaustion. Ordered elixir of bark and iron, three times daily, after meals.

November 8th. During the past five days the treatment has been substantially the same. At present the discharge from the uterus is much less and is of a healthy character; the organ is contracting daily, the os still patulous. The appetite is excellent. Ordered nurse to inject through drainage tube the following solution:—

Zinci sulphatis	ʒj.	
Liquoris acidi carbolici	fl. ʒ iij.	
Glycerinæ	fl. ʒ ij.	
Aquæ puræ	fl. ℥ xvj.	M.

I used the same solution with a double canula after the employment of the disinfecting enema.

November 11th. Discharge less, but is mixed with blood. Patient thinks it is near the date of the appearance of the catamenia. Injections with double canula continued. In all respects doing well; rectal enema to be employed every other day.

November 12th. Undoubted evidence of the presence of the catamenia; uterine injections omitted (might have been continued without detriment); vaginal enema continued.

November 16th. Catamenia of three days' duration ceased yesterday. Intra-uterine injections with double canula resumed, drainage tube replaced. Discharge of pus insignificant, mixed with mucus.

November 18th. All abnormal discharges having ceased, the use of intra-uterine injections and drainage tube is suspended, vaginal enema to be continued twice daily for the present.

November 22d. Patient sleeps and eats well, and sits up three or four hours daily without discomfort. The abdomen bears quite rough manipulation without tenderness.

November 27th. I found my patient dressed and sitting up. She sits in an easy-chair six hours daily. The day before went down one flight and partook of Thanksgiving dinner with the family.

December 13th. The patient called upon me in her carriage, and seemed perfectly well.

The specimen, a pure fibroma, is a round, lobulated body, flattened on its posterior surface, the seat of the most important attachments. Anteriorly it is more irregular, exhibiting a dark gray mass, partly separated from the main tumor. The growth measures five and a half inches in length, by four and a half in thickness. Microscopical examination reveals the characteristic fibrous structure.

The rapid and successful termination of this case, the absence throughout of the least sign of blood poisoning, — an occurrence not uncommon in the treatment of large suppurating cavities, — is, I believe, mainly due to the frequent and copious injections through a large-sized double canula. A detailed description of the method employed will, I trust, prove not uninstructive. The patient being on the edge of the left side of the bed, the surgeon seats himself on the bed, a little below her pelvis. The hose of a fountain syringe, previously filled and attached to a hook in the wall or ceiling six feet high, is coupled with the right tube of the double canula. The canula is now introduced into the patulous os uteri, and held in position with the left hand. This done, the nurse arranges the bed pan, and places the escape or left tube of the canula in it. The suction extremity of a Davidson's syringe is put into the left side of the pan, the other extremity of the instrument into an empty vessel at the surgeon's feet. Everything being in readiness, the stop of the fountain syringe is opened. As the fluid enters the pan, having made the circuit of the canula, the surgeon with his right hand empties the vessel with the Davidson at a rapid rate. In this manner any amount of fluid may be employed without overflowing the pan and wetting the patient, an accident most annoying and awkward, since it always necessitates a change of clothing. During the passage of the fluid, the current should be frequently interrupted by closing the escape tube, thus insuring contact of the fluid with every part of the suppurating surface. This procedure in the case of our patient occasioned a sense of fullness, but not the slightest pain. Three days of menstruation excepted, the injections were employed by myself, morning and afternoon, for eighteen days; and in my absence, one quart of the disinfecting fluid was allowed to pass through the drainage tube every six hours, by the nurse. It must not be forgotten that such a procedure admissible only when the uterine cavity is largely patulous; intra-ute tions with the organ closed being absolutely dangerous.

In the treatment of the uterine cavity after removal of fibroids, or in acute endometritis after childbed, in chronic cystitis, in suppurating cavities either in the pleura, kidney, or cellular tissue, the copious double current not only prevents septic poison, but materially hastens recovery.[1]

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AFFECTIONS OF THE SEBACEOUS GLANDS.[2]

BY EDWARD WIGGLESWORTH, JR., M. D.

COMEDONES, though a frequent, are by no means the sole result of derangement of the physiological action of the cutaneous glands. Increased secretion from the sebaceous glands with free exit upon the skin affords the condition known as seborrhœa. When elimination of sebum through the excretory duct is impossible, and a lobule of the gland becomes distended by its secretion to a non-acinous sac, milium is the result. This condition carried to its highest extent, when the entire gland is distended, is that known as atheroma or cystic tumor of the skin. A subcutaneous condyloma is where the distended glands form a hard, sessile, warty elevation, with their follicular orifices occluded by plugs of sebum. This condition intensified, with perhaps degeneration of the gland tissue, forms the sessile or pedunculate molluscum sebaceum or so-called contagiosum, the acne varioliformis of the French school. Calculi of the skin are movable calcified tumors of the sebaceous glands. One form of xanthelasma is also regarded by many authors as a hyperplasia of the gland cells, with distention of the sebaceous glands and hair follicles, and is called by Neumann by the old name vitiligoidea, to distinguish it from xanthoma or the fibroma lipomatodes of Virchow. The sebaceous glands participate also in the production of the *toute ensemble* of various cutaneous disease-pictures, especially that of acne in its various forms. Simple acne is a more or less superficial inflammation of the sebaceous and hair follicles, and is often due to the irritation of previously existing comedones. In the morbid conditions known as rosacea and sycosis, glandular inflammation plays a prominent part. So also in lupus erythematosus or seborrhœa congestiva. Abnormal diminution of the sebaceous secretion gives rise to a general dryness and harshness of the skin, termed xerosis. Let us consider these varying conditions somewhat more in detail.

Seborrhœa occurs in both sexes and at all ages, and is usually associated with diminished vitality. It may be local or general, and the sebum, according as it contains more solid or oily constituent parts, forms

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[1] Since writing the above I have learned from the patient that menstruation of three days' duration recurred at the proper interval, that she had visited friends a hundred miles distant, and that she was attending to all her duties.

[2] Concluded from page 97.

dry, hard scales (seborrhœa sicca) or a diffused greasy layer (sebo
oleosa). Universal seborrhœa is rare. Locally, the disease
preferably upon the scalp, the face, — especially upon the nose,
the genitals. Upon the scalp it is the normal condition before a
some time after birth, but unless the excessive action of the gl
combated by as rapid removal of their products, the irritation cau
the presence of these last gives rise very frequently to severe and
nate eczema. A liberal use of fat or oil, to soften crusts and r
sebum, soon after the child is born, repeated subsequently when rec
and washings with castile soap or with a weak solution of bora
ammonia, is all that is needed: or, in plain terms, cleanlines
adults the disease is also due to misplaced material, and require
daily externally, and the treatment by internal remedies of the d
or other general symptoms present. It is more common with w
who object to the trouble of keeping their long hair in a cleanly
tion. Here, also, it is often connected with organic disease or fun
anomalies in the sexual apparatus. The dry form, dandruff, may
in connection with good health. Yellowish, gummy, localized cru
more common in debilitated subjects. More diffused, fatty, dirty
scabs are common upon syphilitic individuals. Seborrhœa of th
and nose appears as an oily skin with distended follicles, and, up
nose, comedones and frequently enlarged capillaries. The nose
especially at a low temperature, but yet often feels cold to the fin
do the other extremities in anæmic conditions of the system.
orrhœa of the genitals occurs where, from a narrow prepuce or
cause, the glans penis is not kept clean by washing. Here mo
heat, and friction may combine to produce a balanitis. Seborrhœ
versalis is merely the condition to which formerly the name pit
simplex was applied.

The only disease resembling seborrhœa is eczema. But the
shows a reddened and moist base after crusts are removed; the l
a pale base, not oozing. Eczema burns and itches much more
seborrhœa. It spreads also from the scalp outwards; seborrhœa re
usually confined to the scalp. The therapy of seborrhœa is clean
by means of oil and soap, alcoholic lotions, astringent ointments,
powders and tonics, or treatment of symptoms or of underlying
tutional conditions morbid in their nature, and a strict observance
laws of hygiene.

Milium appears as small grains like kernels of rice, roundish and
under a transparent covering of skin. Their color is a yellowish
their size from that of a pin's head to that of a pea. They occur
eyelids, on the cheeks, — particularly below the eyes, — and on th
itals, and may also occur wherever by a surgical operation or by a
inflammatory process single lobules have been cut off from th

sebaceous gland. They are cured by pricking them and squeezing out their contents.

Cystic tumors of the sebaceous glands or atheromata are the well-known wens, occurring rarely anywhere except upon the head or neck, single or numerous, lying in the subcutaneous cellular tissue, present in both sexes and at all ages, of any size, painless, and only annoying by their presence, except when in very rare cases they inflame, suppurate, and discharge their contents. The proper treatment is the dissection out and removal of the cyst.

Subcutaneous condyloma is found usually upon the genitals and thighs. The nodules are dull white or red, and usually of the size of a pea. A faint umbilication marks the orifice of the duct, and from this is protruded under pressure the secretion of the gland, followed by a little glandular formation resembling a minute condyloma. This takes its origin from the floor of the hair follicle. The disease is painless, and may disappear of itself. If not, the nodules may be snipped off with scissors and their bases touched with nitrate of silver or the tincture of the perchloride of iron.

Molluscum sebaceum is the final development of condyloma subcutaneum. It is of any size, and when too heavy to remain sessile becomes pedunculate. It may be present anywhere, but it is most common upon the face and genitals. It is chronic in its course, and is distinguished from the fibroma molluscum by its follicular aperture, from which pressure can force a semi-fluid milky mass. This is the vehicle of the contagious principle, the fact of the existence of which is now pretty thoroughly established. A typical case of this disease, progressing, however, only to the stage of subcutaneous condyloma, occurred upon my own person some months after expressing with my fingers, for the purpose of examination, some of the contents of a tubercle of molluscum. The treatment is removal by means of scissors, or if the nodules are small and numerous they may be squeezed and touched with tincture of iodine or some liquid caustic.

Calculi of the skin feel to the finger like grains of gravel, and are to be removed by puncturing the skin and squeezing out the little mass.

Xanthelasma exists as bands or nodules of a pale yellow color, slightly protuberant, painless, and permanent. It occurs most commonly, according to Neumann, in women over forty years of age. The eyelids and cheeks are usually the parts affected. This disease is regarded by most authors as due, in general, certainly, to a proliferation of connective tissue with subsequent fatty degeneration. The treatment is excision, if ectropion can be avoided. In particular cases caustics may be employed, the best being concentrated carbolic acid, which leaves little or no scar.

Acne may be found as reddish papules or pustules on all parts of the body except the palms and soles. It does not occur spontaneously before puberty, and is rare after middle life. Moderate itching and slight pain on pressure are the only subjective symptoms. Patients may be tuberculous, scrofulous, or scorbutic, and present acne in the form of copper-colored or bluish nodules or of pustules holding only a little serous pus (acne cachecticorum). The most frequent concomitant of acne is digestive derangement and, in the female, menstrual irregularity. Acne results from comedones or may follow an eczema; it is the usual local result of the external application of tar to hairy parts of the skin, or, more generally diffused, may be the consequence of working in the vapor of tar. Here it is not due to breathing the vapor, as the parts protected by clothes are spared. The internal use of the iodides or bromides also causes acne. Acne stands in no relation to chastity or to excess in venery. Nor does it, like urticaria, depend upon articles of diet. The superstition, of obvious origin, that the use of butter, gravies, oils, or other fats as articles of diet should be avoided when comedones or acne exist, is totally erroneous except so far as these are found by experience to interfere with digestion. The continual feeling of the face with the finger, if a comedo or any other trouble is present, as is common with women and nervous people, tends to produce acne, the oil of the finger occluding the orifices of the sebaceous ducts. Acne is also rendered worse by many irritating ointments, which act in the same manner. The disease is very obstinate, tends to recur after removal, and requires the coincident cure of any underlying gastritis or other morbid condition. Treatment should be begun early and long persisted in. The therapy has been already given under comedones: Sapo viridis or German soft soap; this, however, varies in different places in the amount of potash which it contains. The best is that of Duvernois, of Stuttgart. This contains four per cent. of caustic potassa in excess, or above neutral. Babo, in Boylston Street, Boston, imports a fluid glycerine soap which is admirable for ladies' use. Emplastrum hydrargyri or de Vigo cum mercurio, or unguentum hydrargyri, or unguentum hydrargyri compositum, are of value. So also the stronger ointments of mercury combined with four to eight parts of simple ointment. The acid nitrate of mercury pure, as recommended by Waren Tay, does, according to my experience, more harm than good. The best results are obtained from lotions, soaps, or ointments containing sulphur. In light forms of acne care must be taken not to irritate by over-stimulation. In chronic cases strong stimulation may be needed.

Scarification, or puncturing with a lancet every separate papule or pustule, I hold, in opposition to some other dermatologists, to be of great service, — when it is permitted by the patient. Histogenetically, acne is inflammation of the follicles and contiguous parts. Capillaries are enlarged, white blood corpuscles are exuded into the corium, and a papule is formed. Reabsorption may ensue, or cell-disintegration or tissue-formation. In the first case the papule disappears; in the second we have, according to Gustav Simon, a drop of pus formed in the corium; in the last we get the condition known as acne indurata, which may last for many years. Puncture in the first case relieves the distended capillaries and promotes reabsorption. So in the third case, where also the scaling of the cuticle, which is necessary for the gradual reduction and removal of the indurated nodule, is furthered by the division of the tissue-layers. Especially, however, in the second case, which is the one commonly presented to our notice, do we derive benefit from puncturing the papule or pustule and allowing it to bleed under warm applications. For here the condition is practically that of a furunculus. The mere presence of the pus tends to intensify the existing condition. The confined fluid presses, lawfully, equally in all directions. Pressure causes absorption, which goes on until the pus has made for itself an aperture of exit through the epidermis. But this is hard and horny, the subjacent tissues are softer, and by the time the superjacent strata of epidermis have been bored through, the subjacent softer layers have been absorbed to such an extent that reparation must be due to cicatricial formation, and we have a scar or pit remaining, which might have been avoided. In some cases many follicles merge themselves together into small abscesses containing large amounts of pus.

According as acne is sthenic or cachectic, so must the internal treatment be arranged to meet the existing conditions. In anæmic and strumous cases the iodide of potassium is useful; so, too, is iron, in more liberal doses than most physicians employ, and in the form of tartrate of iron and potassa, or of iodide of iron, if constipation is present; if otherwise, the sugar-coated pills of carbonate of iron made by Bullock and Crenshaw, or the tincture of the chloride, are trustworthy. This last as well as the tartrate should be always taken through a quill or straw, and the teeth should then be brushed with chalk powder or the mouth rinsed with lime water. A prominent dentist has informed me that he "has put many hundred dollars in his pocket as the result of but a few doses of acid preparations of iron improperly administered and therefore acting upon gold fillings." Cod-liver oil is often indicated; this remedy is rarely objected to if the patient temporarily obliterates the sense of taste by a mouthful of spirits or spice, and then takes the oil between two layers of porter, ale, coffee, etc., holding the nose meanwhile and not releasing it until the mouth has been thoroughly rinsed and a "peppermint" inserted. In plethoric subjects, when gastritis is present, a mixture of three parts of bismuth to one of aromatic powder may be taken, *pro re natâ*, in ten-grain doses, whenever "a sinking or fluttering of the stomach" is felt; also, after each meal, a small dose of some light alkaline laxative, as, for example, a drachm of a mixture of equal parts of bicarbonate of soda, carbonate of magnesia, and powdered sugar; or a teaspoon of sweet spirits of nitre.

The patient must guard against local congestion of the face by friction of the whole body mornings and evenings; by exercise in the open air, preferably walking, which brings the law of gravitation to his aid; by sleeping with the head slightly raised, but not enough to compress the vessels of the neck; by a laxative diet; by the use of warm water for the face, which effects an enduring desirable reaction, whereas cold water causes temporary contraction of vessels, followed by an enduring dilatation; by avoiding all interference with the circulation by tight corsets, garters, and especially tight collars; by avoiding protracted stooping over desk or table, especially if this brings the head near a burning drop-light; by eating slowly and chewing all food thoroughly, the first and great hygienic commandment for Americans, and by not diluting the food with too much liquid of any kind. Tobacco and all alcoholic stimulants should also be avoided. These are a few practical hints. For those who prefer drugs, the ***rudis indigestaque moles*** of the United States Dispensatory is available.

The limits of this article permit no discussion of rosacea and sycosis, where the sebaceous glands supply camps, nor of lupus erythematosus where they furnish the cradle, of morbific processes. Enough has been already said to show the general method of treatment desirable in the first and second cases.

Xerosis, or diminished secretion of the sebaceous glands, may be congenital. It may be acquired as the result of excessive contact with agencies which naturally remove fats, such as soaps, lye, and ethers It may accompany various diseases, as elephantiasis, scleroderma ichthyosis. In the first case it may be alleviated, not cured, by inunctions of oil or fat; in the second case it may be cured by removing the cause; in the third case it may be endured, with patience or without according to the temperament of the individual afflicted.

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RECENT PROGRESS IN THERAPEUTICS.

BY R. T. EDES, M. D.

Action of Iodine. — Kämmerer[1] believes that the action of free iodine as a medicine depends on the direct destruction of the parts of the body brought in contact with it, and that the general action of iodide of potassium is completely identical with the local action of free iodine; an identity which is to be explained only by a decomposition of the iodide in the blood with formation of iodine. Binz supposed that this decomposition might be represented by the formula $2KI+CO_2+O = K_2CO_3+2I$, which, according to Kämmerer, is impossible, since iodine acts upon a watery solution of an alkaline carbonate with a formation of an iodide and an iodate of the alkali.

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[1] Virchow's Archiv, lix. 459, lx. 526, and Centralblatt, 1874, page 716.

Kämmerer assumes that, beside the free iodine, another body must be formed, upon which iodine does not act, and considers such the superoxide of potassium, which easily oxidizes organic bodies, by which it is reduced to potash, and thus favors the metamorphosis of tissue. The organic bodies to be oxidized may be miasmatic substances and ferments, or, later, fibrin and albuminous bodies.

Buchheim,[1] after stating that iodide of potassium is an easily dialyzable salt, and as such is rapidly eliminated from various mucous membranes, finds in the ozone which is always developed wherever watery evaporation is rapidly going on, and therefore on the skin and mucous membranes, an agent which is capable of setting free the iodine from its combination, thus giving rise to the well-known coryza in the air-passages, and, when the iodide is eliminated with chloride of sodium in the perspiration, to the well-known acne-like eruption upon the skin, especially those parts exposed to the air and to free evaporation.

The increased destruction of albuminoid material, spoken of above by Kämmerer, Buchheim cannot admit, on either chemical or clinical grounds. A destruction of miasmatic substances and ferments is not among the observed effects of iodide of potassium. Again, neither the temperature nor the excretion of urea is increased by its use, as they should be according to Kämmerer's theory. The emaciation and dyspeptic symptoms observed from the use of tincture of iodine and of Lugol's solution are not necessary consequences even of the long-continued use of iodide of potassium.

Buchheim suggests that the free iodine acting upon the walls of the smaller blood-vessels and capillaries may so irritate them as to cause their contraction, and thus a diminished blood supply to certain very vascular organs, as the thyroid gland and the spleen, which show especial susceptibility to the action of this drug. With small doses this action is felt only upon organs having a specially favorable organization for it, as in those just mentioned, while if the dose is larger the action is a more general one.

Cod-Liver Oil. — Why does cod-liver oil produce better results than any other oil? One of the earliest answers given to this question was, Because it contains iodine; but the amount of iodine contained therein is exceedingly small, and no greater than that found in salt-water fish and oysters. The statements as to the presence of biliary matters rest on imperfect and somewhat antiquated chemistry, but may perhaps after all be not without weight. Naumann showed that fish-liver oil passed through membranes with greater facility than any other fat oil; and that liver oil deprived, as far as possible, of its biliary matters, lost much of this property and behaved like other oils.

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[1] Archiv für Experimentelle Pathologie und Pharmacie, iii., page 104.

Buchheim[1] finds in cod-liver oil a considerable proportion of free fatty acids, which render more rapid and thorough the saponification and absorption of the oil by the alkaline fluids of the duodenum. What the precise proportion between free fatty acids and the glycerides may be, which is most favorable to their digestion, is a point yet to be determined. It does not follow that it is the same as that existing in cod-liver oil. It may even be advisable to administer free fatty acids instead of cod-liver oil. He therefore hopes, since stearic and palmitic acids are solid at ordinary temperatures, that some means may be found for manufacturing in abundance pure oleic acid, which may be either used alone or added to cod-liver oil, and replace the partially decomposed oleic acid to which the disagreeable odor and taste of the darker varieties of cod-liver oil are due.

Koumiss. — In the *Journal de Thérapeutique*, M. Landowski publishes a somewhat elaborate series of articles upon koumiss, or koumys, of which we present some of the chief points.

The milk is placed fresh in a leather or stone bottle or a wooden tub, and a ferment is added, which is either old koumys, rye meal, or beer-yeast. It is kept at a temperature of from 68° to 88° F., and, with frequent stirring, is done in three days. It is not always made with the milk of the mare, but this is sometimes replaced by cow's milk, sugar being added in sufficient quantity to obtain the alcoholic fermentation. Koumys is a lactescent liquid of whitish color, of a characteristic odor recalling that of whey, and a slightly acid and pungent taste much resembling that of buttermilk. It leaves a fresh and agreeable after-taste. The carbonic acid, which it contains in quite large quantity, renders it very foaming, so that it has been called champagne milk.

Left standing uncovered it divides into three distinct layers, the lower cheesy, the second consisting of serum in large quantity, of a semi-transparent greenish color, and on top the whitish layer formed by the fatty bodies. It is a food which contains large quantities of inorganic salts, fatty bodies, sugar, alcohol (two to three per cent.), albuminoid materials, carbonic and lactic acids. It thus combines in itself all the substances necessary for food, together with a digestive (lactic acid) and a stimulant (alcohol).

The genuine koumys-drinkers take enormous quantities of it (eighteen litres, or about as many quarts, per diem), but eat very little. It sometimes produces at first a slight diarrhœa, but constipation is the more frequent result of its continued use. The quantity of urine increases, as might be supposed, but the specific gravity instead of falling, as would be the case if this increase were due to water alone, may rise. In nurses the milk is increased in quantity, and becomes richer in salts and fat.

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[1] Archiv für Experimentelle Pathologie und Pharmacie, iii. 118.

The pulse undergoes a primary acceleration, and is, later, increased in fullness. The blood becomes richer in hæmatoglobulin and in fibrin. Seeland compares the action of koumys on the blood to the effect of a transfusion.

An exhilaration of the nervous system, not followed by any disagreeable reaction, is due to the alcohol and carbonic acid. One of the most important and constant effects, according to Landowski, is the increase of *embonpoint.* Statistics are given of the weight of several phthisical patients under a diet of koumys; thirty-eight individuals gained an average of seven pounds; seven of these presented no amelioration, while five, who had cavities, gained an average of ten and one half pounds. In children the weight increases with a rapidity which much surpasses that observed in adults.

Koumys has been used in phthisis largely by the Russian physicians, and somewhat by the French. Its good effects are specially manifest in patients affected with phthisis accompanied by nervous erethism without much fever; where gastric troubles complicate the disease the effects are truly surprising. Amelioration takes place as follows: sleep returns, the fever disappears little by little, the pulse becomes full and moderate, the cough diminishes, the sputa after a few days of treatment cease to be purulent, become muco-purulent, and then mucous. The appetite increases; vomiting, if there are dyspeptic complications, ceases or diminishes. Presently the strength returns, and the weight increases. Usually patients soon become accustomed to the taste, and take the remedy even with pleasure. In three cases of albuminuria, koumys gave good results. In chlorosis and chloro-anæmia, with dyspeptic complications, where iron is not well borne, a few weeks of koumys will prepare for its subsequent exhibition. The treatment by koumys should last at least six weeks. The patient should take from one to four bottles per diem, preferably neither fasting nor immediately before or after a meal, though the time is to a great extent a matter of habit. Koumys No. 1, containing two per cent. of alcohol, is that in ordinary use. With gastro-intestinal complications, vomiting, diarrhœa, etc., or in profound asthenia, No. 2, containing three per cent., may be used.

Chloral. — In the Société de Chirurgie [1] there has been a discussion upon the treatment of tetanus by chloral. The method of M. Oré has not proved successful in Paris. The reporter says that this discussion shows that the Société de Chirurgie appears to consider chloral as one of the best, if not the best, means to oppose tetanus. Most of the members are of the opinion that it is necessary to administer it at once in a large dose, in draught or enema, reserving the use of intra-venous injections for the severest cases.

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[1] Journal de Thérapeutique, September 10, 1874, page 665.

M. Colin[1] has made some experiments to compare intra-venous with subcutaneous injections of chloral. He finds that intra-venous injections may be borne in large doses if given slowly and with very dilute solutions; if given otherwise, they may cause death quickly, and even instantaneously, by syncope. Chloral under the skin is borne in larger doses. It acts promptly, and the sleep produced is as profound and prolonged as when given by the veins. It may produce asphyxia from irritation of the vagi and recurrent nerves, when injected around the neck.

A case of chloral poisoning from three hundred and sixty grains has been successfully treated with strychnia subcutaneously.[2]

M. Oré thus formulates his method of producing anæsthesia by the intra-venous injection of chloral, founded on fourteen cases with fourteen successes.[3] An essential condition is puncture of the vein without denudation or dissection, unless the patient is very fat, when the vein may be exposed by an incision. The solution should contain ten grammes (one hundred and fifty-four grains) of chloral in thirty grammes (about a fluid ounce) of water. At least five grammes are necessary for anæsthesia. M. Oré waits before operating three or four minutes after the cornea has become insensible. One gramme per minute should be injected, five to eight minutes thus being necessary for the preliminary operation. If the canula remains longer than this there is a liability to the formation of clots. The advantages of the operation are: no disturbance of respiration; insensibility varying with the dose; no period of excitement; never any vomiting; deep, calm, regular sleep, which, lasting from ten to twenty-four hours, completely annihilates the after-effects of the operation; *never* phlebitis, clots, or hæmaturia when the injection is *properly done*. According to M. Oré whenever clots have been found adherent to the wall of the vein,[4] the cause is not in the chloral, but in the way in which it has been employed or in some previous alteration of the blood. Hæmaturia has never bee observed in man.

M. Martineau[5] finds a four per cent. solution of chloral applied upo a tampon a useful application in cancer of the uterine cervix. Th hæmorrhages cease, the fœtid discharge disappears, and the pains a diminished, although of course the disease itself is not checked. It also a useful application in wounds when they are the result of eschars sphacelus. In three cases sleep has followed the application of the chlor

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[1] Journal de Thérapeutique, July 25, 1874, page 548.

[2] Journal de Thérapeutique, August 25, 1874, page 639.

[3] Journal de Thérapeutique, November 25, 1874, page 873.

[4] Boston Medical and Surgical Journal, September, 1874: Report on Therapeutics.

[5] Journal de Thérapeutique, July 25, 1874.

Several cases of varix have been cured by the injection of chloral.[1] [Probably from local irritation. — REP.]

MM. Feltz and Ritter,[2] in experimenting upon dogs, found that upon killing them by repeated injections of sufficient chloral to keep them in a continuous state of anæsthesia, the urine contained dissolved hæmoglobin. After death, ecchymotic spots were found upon the intestinal mucous membrane, and congestion of the kidneys. The blood was profoundly altered, the globules deformed, without elasticity, the plasma was tinged red, and the globules had notably lost their capacity to absorb oxygen. The *expired air yielded chloral and not chloroform.*

M. Tanret[3] finds that if to a mixed solution of hydrate of chloral and permanganate of potassa an alkaline solution, such as caustic potassa, or even borax, be added, oxide of carbon is disengaged.

He thinks it probable that this decomposition takes place in the blood, and that the fall of temperature observed during the action of chloral is like that observed by Claude Bernard in poisoning by carbonic oxide, which combines with the blood-globules.

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PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

[REPORTED FOR THE JOURNAL.]

DECEMBER 12, 1874. — DR. ABBOT, senior Vice-President, in the chair.

The Contagiousness of Puerperal Fever. — DR. COTTING said that although it may be true that the practitioner may convey the contagion of puerperal fever from one patient to another, yet, avoiding now any expression of opinion as to the contagiousness or non-contagiousness of the disease, the fact that numerous cases occur in the practice of a single individual, while others about him are more fortunate, is not a valid argument in favor of contagion. The argument is the same in the case of any other disease which may happen in the way of an individual physician.

Cases of Broken Breast. — DR. EDSON gave an account of five cases which had occurred in his practice since the month of July. The first, in August, was the inflammation of a single lobule above the nipple in a primipara. Fluctuation occurred, and pus was evacuated by the lancet. The patient had a tedious labor, terminated by forceps, and was getting up very slowly, with poor sleep and no appetite. In the fourth week after delivery an abscess occurred in the other breast, and was emptied by incision on the sixth day. The next case occurred in the fourth week. The patient had had concealed hæmorrhage at the time of labor, and was reduced in consequence. The right breast suppurated, the left breast threatened to, but did not. In the third case there was suppuration of a large, hard, painful mass in the left breast. The labor had been not over four hours in duration. Two more cases had occurred since the one last mentioned. In all the instances, but one lobule was affected; in two, milk returned; in none was there much pain.

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[1] Journal de Thérapeutique, September 25, 1874, page 716.

[2] Journal de Thérapeutique, September 10, 1874, page 663.

[3] Journal de Thérapeutique, October 25, 1874, page 788.

Dr. Reynolds asked if the patients all lived in the same district.

Dr. Edson replied that most of them were in the vicinity of Warren Street, but the localities extended east and west, so that some of the patients were a mile apart; they were all in good circumstances, and well-conditioned.

Dr. Chadwick inquired if there had not been a good deal of typhoid fever in that region since the introduction of the Cochituate water.

Dr. Edson was not aware that there had been.

Dr. Ingalls remarked that some writers ascribe broken breasts to carelessness. He thought it a very unfair assertion. He mentioned the case of a lady who was confined under his care a few weeks ago; she was much depressed by cares and anxiety, and on the fourteenth day after confinement abscess began, which ran its course. There was no assignable cause other than the general condition of depression.

Dr. Edson said that in his cases there were unusually good breasts, and no difficulty in nursing. The first-mentioned instance was the only primipara, but there was no fissure or chap of the nipples, nothing but the atonic condition of the patient to account for the disease. In the other three patients everything had seemed favorable, and he had ceased attendance before the abscesses appeared. He could not recall the occurrence of a case during the three years preceding those just reported, but a similar group occurred about three years ago.

Dr. Abbot asked if sudden emotion had preceded the abscess in Dr. Ingalls's case.

Dr. Ingalls replied there had been no sudden emotion.

Dr. Abbot said that he had had, a few years ago, a case of broken breast which was distinctly traceable to sudden emotion. The nurse injudiciously introduced into the chamber the patient's brother, whom she had supposed to be two or three hundred miles away. She was overcome with emotion, and instantly felt a sharp pain in the left breast. There was marked inflammation in a few hours. An abscess resulted, which discharged for five months.

Dr. Edson, in answer to questions by Dr. Lyman, stated further that he had long since given up active treatment and adopted palliative or let-alone methods. The abscesses began with a knotted feeling, and after twenty-four hours became painful. There had been no chill previous to suppuration. The cases had been seen at the start. There had been no interference by rubbing, pumping, and the like. The patients were all good, sensible people.

Dr. Lyman stated that he had always treated the commencing inflammation by tightly strapping down the swelling with strips of adhesive plaster, after which the breast should be thoroughly let alone; but he always allowed the child to nurse. He had never had actual abscess where he had been able to apply this treatment sufficiently early.

Dr. Edson said that he had tried this plan of treatment and had given it up.

Dr. Arnold reported three recent cases in his own practice. There was swelling in several lobules at the same time. The apparent cause in his case was over-nursing.

Dr. Lyman remarked that strapping will not stop an actual abscess. He instructs his patients to notify him at the first sign of trouble with the breasts.

Dr. Reynolds thought there was a strong analogy between the swelling of the breast and the swelling of the testicle. In the latter case one straps the testicle tightly, puts the man on his back and the testicle towards the ceiling; so he believed in the support of the breast, and perfect rest of the patient on the back. The disuse of the breast he thought an important indication when the nipples were sore, and the swollen breast if left to itself, though it might become painful and require opiates, would eventually subside without trouble and retain a portion at least of the milk. If the breast is suffering, disuse it.

Dr. Cotting said that he had seen the disease occur before delivery. He remarked that the cases cited by Dr. Edson illustrated the fact that other diseases besides puerperal fever follow in the wake of a physician, as in the case of one who, in the same region of practice with himself, has been attending numerous cases of scarlatina.

Dr. Lyman queried whether atmospheric conditions, especially as belonging to high or low situations, have any special influence in the production of mammary abscess.

Dr. Fifield said he was reminded by this discussion of the case of a patient who, though not having broken breast, had a very curious affection of this organ. It was the case of a woman forty years old who had never had children. She was subject to attacks of stinging pain in both breasts, and with the flash of pain came a discharge from the nipples of a bright grass-green fluid. He had seen the discharge take place. The fluid showed, under the microscope, epithelial scales and some bodies like blood-globules.

Hepatic Disease during Pregnancy. — **Dr. Fifield** reported the case of a woman whom he had been called to see, some weeks ago, in consultation. Cases of malignant jaundice, he remarked, are known to occur in puerperal women. The diagnostic mark is the color of the urine, skin, eyes; the cases go on to convulsions and death. The symptoms are attributed to atrophy of the liver, the cause of which is said to be pressure from the distended uterus, the abdomen being too small; the pressure causing primarily inflammation, the products of which by lessening the size of the vessels occasion atrophy. The symptoms are more directly attributed to the introduction of bile into the veins.

In the case reported the patient did not have jaundice, but she vomited bile-liquid very profusely. When Dr. Fifield was called to her he had hardly any prospect of finding her alive; when he reached the house the attending physician reported that she had just been delivered and was lying at the point of death. He found the pulse very rapid, though with some strength. Three days previously she had had violent pain in the bowels, with tendency to vomit. Nothing was retained upon the stomach and nothing could be given to relieve the pain. A very careful and minute examination showed a tender spot below the ribs on the right side, and the rounded edge of the liver and the gall-bladder could apparently be made out. His diagnosis was probable disease of the liver, perhaps gall-stones; prognosis unfavorable. The treatment was iced-champagne. The delivery was in the eighth or ninth month. Three days since (December 9), a letter from the gentleman in attendance stated that the patient had been slowly improving from the date of the delivery, and as the bowels became more flaccid, enlargement of the liver was found. She was doing well at the time of writing. She had not had much vomiting during pregnancy.

Anencephalus. — Dr. **Hodgdon** stated that since the last meeting he had attended a patient delivered, at the eighth month, of an anencephalous fœtus, with the usual excessive amount of liquor amnii. On examination he had found a rough mass presenting. Two days later, when dilatation had occurred, the membranes protruded so as to prevent an examination of the presenting part. He ruptured the membranes, when immediately the face was brought down into the vagina.

Dr. **Sinclair** said the first case of this sort which he ever saw was a patient in the lying-in hospital at Edinburgh. The patient's abdomen was enormously distended. The membranes were ruptured, and ragged, rough, bony projections were felt; there came a flood of liquor amnii, deluging the bed and running over upon the floor.

Dr. **Edson** also reported a case, in which an immense discharge of liquor amnii began forty-eight hours before the delivery of an anencephalous fœtus.

Dr. **Arnold** reported the case of a patient with typhoid fever in whom the amount of liquor amnii was very large. The child also was very large, weighing ten and one half pounds. The portion of the liquor which first escaped was of a dirty brownish color. The patient was very weak; the face presented and delivery was accomplished by the forceps.

Endometritis. — Dr. **Miller** said endometritis is much more common than is generally supposed. It has no specific general symptoms, but is to be detected by examination; and for this he relied more upon the sound than upon anything else. The sound will discover either sensitiveness or induration, more commonly upon the posterior surface of the uterus, where the disease is more amenable to treatment than when the fundus is affected. He depends for treatment more upon the intra-uterine scarificator than any other means, and does not think its use is attended with any danger. In only two or three instances has be been obliged to arrest the hæmorrhage, and this is easily done by plugging the os. His plan is to let the hæmorrhage go on as long as the patient will bear it.

Dr. **Abbot** asked if sensitiveness alone is an indication of endometritis.

Dr. **Miller** said that it is so; but the sensitiveness is peculiar and sharp, and very different from simple hurting by the careless passage of the sound. The disease, he said, is reported under various names, as chronic catarrh, for example.

Dr. **Lyman** asked if the cases were characterized by increase of depth of the uterus, by its enlargement, or by hæmorrhage.

Dr. **Miller** replied that they were not much so. He relied for diagnosis principally upon the sound, using the scarificator as such.

Dr. **Sinclair** inquired as to the relative frequency of the disease.

Dr. **Miller** thought half his patients had endometritis.

Dr. **Sinclair** said that he was familiar with the use of the sound, and he had found sensitiveness to be a very common symptom in the class of patients which came under his notice.

Dr. Miller said that the ordinary uterine sound, Simpson's, causes more suffering than the straight sound. He did not think the crooked sound could enter the cervix and body of the uterus without causing pain, especially if the uterus be bent upon itself, and when it is necessary to rotate. In answer to a question, Dr. Miller said that the patients with endometritis do not necessarily have dysmenorrhœa.

Lymphangioma. — **Dr. Chadwick** showed a lymphangioma, which he had recently removed from the vagina of a patient who has been subject to epileptiform convulsions. The case will be published in a future number.

Dr. Abbot said that several years ago he had a patient with a tumor which may prove to be a lymphangioma. It formed a hard even ridge just within the meatus urinarius, projecting outwards very slightly, and extending upwards along the urethra. It occasioned no annoyance except from the fact of its existence.

Dr. Bolles asked if lymphatic glands may not be normally in such situation.

Dr. Chadwick said that in fully half the sixteen or eighteen cases reported, the tumor was in this very situation between the urethra and the vagina.

Dr. Bolles asked if it might not be called an inflamed lymphatic gland.

Dr. Chadwick said that the microscope showed lymphatic vessels ramifying in a dense fibrous stroma. The structure was not that of a lymphatic gland.

Ectopia. — **Dr. Richardson** showed a fœtus which exhibited ectopia of the abdominal viscera. The case will be published in a future number.

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DIAGNOSIS AND TREATMENT OF CHRONIC ECLAMPSIA AND EPILEPSY IN CHILDHOOD.

Rudolph Demme, in the *Jahrbuch für Kinderheilkunde*, volume viii., states that in twelve years about thirteen thousand seven hundred children were treated in the Children's Hospital at Bern; of these, forty-three had epilepsy, sixty-eight eclampsia. Of the latter, thirty-seven were boys, thirty-one girls; thirty-nine cases were acute, symptomatic, or secondary; and after the cessation of the exciting disease the convulsions did not return; twenty-seven cases were idiopathico-chronic and primary, and the convulsions usually recurred. Among the cases of epilepsy were twenty-three boys, twenty girls. The lowest age at which epilepsy was noticed was one year and a half; in this case both parents were also epileptic; nine children with epilepsy were in the third to the fifth year; seventeen in the sixth and seventh; fourteen in the eighth to tenth; and two were in the twelfth year. The cases of eclampsia occurred previous, to the twentieth month. In forty-four per cent. of the cases of epilepsy the ancestors were found to have suffered from the same affection. In sixty per cent. of the cases of eclampsia hereditary tendency was shown, generally on the father's side.

There are peculiarities in the origin and development of separate symptoms which aid in the differential diagnosis. Premonitory symptoms may prece an attack of eclampsia. A child, soon after eating or drinking, is put to slee a peculiar combination of symptoms is observed. The end of the nose, the fo head, and the cheeks become somewhat paler than usual, the eyeball is seen oscillate, slight spasmodic action of the facial muscles is noticed, the expressi becomes anxious, respiration irregular, slight spasms occur in the limbs, t hand opens and shuts, then quiet sleep follows, or the child awakes screa ing, crying, and struggling. This is a mild form, but it may increase in sev ity, and then the convulsions spread to different groups of muscles, and accompanied with loss of consciousness. The attacks are generally m severe at the time when the first teeth appear; they then gradually dimini in severity, and cease at the close of the first dentition.

In epilepsy we see loss of consciousness occurring suddenly, and witho warning; for some seconds or a few minutes the child momentarily ceases activity, with sudden loss of consciousness and of sensibility; he does not fa but seems to have vertigo; the head and neck are generally thrown back, t eyeball is turned up, the countenance distorted and pale; with the return consciousness it flushes. Rarely are there spasmodic actions in the face limbs. These attacks of "petit mal" occur more or less frequently, with int vals of good health; their characteristic is the total loss of consciousness a sensibility. The eclampsia is characterized more by muscular spasm and slig symptoms of spasm of the glottis, as well as by the frequent presence of so cause of irritation in the alimentary canal. The epileptic attacks contin after the first dentition, and merge into the fully developed epileptic fits. T vertigo may offer special peculiarities in different cases.

The premonitions of an attack of eclampsia, which may be called an au occur more generally while the child is asleep, or consist in objective pheno ena, and the child takes no notice of them. The subjective perception by t patient of the aura, with its characteristic warning and regular recurrence, is peculiarity of epilepsy, and in doubtful cases is of decided diagnostic and pro nostic value.

In about half the cases of epilepsy and chronic eclampsia, the urine w examined. After severe and long-continued attacks of epilepsy, and also chronic idiopathic eclampsia, the urine first passed, three to nine hours aft the attack, contained a considerable amount of albumen; after the severe attacks of epilepsy hyaline cylinders were found, and a few blood corpuscle the albumen was found as late as fifty-two hours after the attack. Aft eclampsia the albumen was found only immediately after the attack, and n hyaline cylinders nor blood. In about a quarter of the cases of epilep examined sugar was found in the urine with oxalate of lime. In only tw cases of eclampsia was this the case.

Another symptom very important for diagnosis is that epilepsy affects u favorably the mental development of the child very quickly; but in eclamps there is no such influence.

The remedy found to be most successful in the treatment of epilepsy, eig cases, and eclampsia, only two cases, was sulphate of atropia by subcutaneo injection, using 0.001 to 0.002 of a gramme (0.015 to 0.03 of a grain) once twice a day. Both cases of eclampsia were probably cured; two cases of epilepsy were cured, one was probably cured, two were much improved, and ee received no benefit. Only those cases were so treated where there was no apparent organic disease of the brain, and they had all been unsuccessfully treated by bromide of potassium previously to using the atropia.

MEDICAL NOTES.

— Dr. Edward Delafield died at his residence in New York, February 13th. He was born in that city May 17, 1794. He graduated from Yale College in 1812, and four years later obtained his medical degree from the College of Physicians and Surgeons. After a visit to Europe for purposes of study and observation, he returned to New York and engaged in practice. In 1825 he was appointed Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, and continued to fill the chair with signal ability until the year 1838, when his increasing private practice obliged him reluctantly to resign both his professorship at the college and his position at the hospital. In 1858 he was elected President of the College of Physicians and Surgeons, a position which he held at the time of his death.

We have received a tribute of respect to Dr. Delafield from a venerable correspondent who relates of him the following anecdote: Many years ago the writer, then a young country doctor, residing in the southern part of Vermont, offered to send an infant child, who had congenital cataract of both eyes, to Dr. Delafield's infirmary, in case the age of the child was considered suitable for operation. Dr. Delafield replied that he supposed his correspondent was a young man, and probably ambitious; he insisted that one able to write so intelligently on the subject should himself perform the operation, and he offered to send to the young physician the needful instruments and a recent book upon cataract. The offer was accepted and the operation was successfully performed. Our correspondent expresses in strong language the debt of gratitude incurred, and the influence which this incident exercised upon his future professional career. Such an instance of interest in the welfare of others shows a spirit which many a successful man in our profession might do well to imitate — an instance of the true *esprit de corps*. Dr. Delafield was buried at the same time with his two brothers, the three having died almost simultaneously of pneumonia contracted during the late cold weather. Joseph, the eldest, was eighty-five; Henry, eighty-three; and Edward, eighty-one years of age. Trinity Church was crowded, a large number of physicians being present.

— The Legislative Committee on Drainage and Water Supply will give a public hearing at the State House on Tuesday, March 23d, at 10 o'clock, A. M., to those interested in the petition of the Massachusetts Medical Society for the appointment of a commission to investigate the use of running streams as common sewers in its relation to public health.

— The regular practitioners of medicine in Salt Lake City met Feb 1, 1875, and organized themselves into an association to be known a Salt Lake City Medical Society. The society adopted a constitution laws, and the code of medical ethics recommended by the American M Association.

— At the last meeting of the Obstetrical Society of Boston (March 13 the following officers were chosen for the ensuing year: *President*, Dr. Hodgdon; *Senior Vice-President*, Dr. S. L. Abbot; *Junior Vice-Presiden* A. D. Sinclair; *Treasurer*, Dr. C. D. Homans; *Recording Secretary*, I W. Swan; *Corresponding Secretary*, Dr. Hall Curtis.

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SURGICAL OPERATIONS AT THE BOSTON CITY HOSPI

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

THE following operations were performed during the week ending F March 5, 1875: —

1. Excision of humerus. 2. Fistula in ano and hæmorrhoids. 3. In for suppurative choroiditis. 4. Carbuncles. 5. Caries of tarsus. 6. N sis of femur. 7. Amputation of finger. 8. Iridectomy. 9. Strabismus.

1. *Excision of the Humerus.* — A laborer, twenty-eight years of age, l to have pain in his right shoulder three years ago. There was swelling derness, and partial loss of motion. He had received no injury, nor was any history of syphilitic disease. Not quite a year ago he had a "f and since that time he had been gradually growing worse. In Augu abscess was opened just behind the greater tuberosity of the humerus.

At the time of the operation there were two sinuses over the upper and part of the right shoulder-joint. They communicated with each other with dead bone, and extended round on to the anterior aspect of the sho The joint was open, and a probe entered a sinus in the head of the hum The shoulder was moderately swollen, and the arm nearly anchylosed wit scapula and almost useless. The duration, character, and unfavorable pro of the disease, his inability to use the arm, and hence to earn a living his straitened circumstances, all led Dr. Thorndike to advise a resection diseased bone. The patient was etherized, and an incision six inche made over the point of the shoulder from the acromion process to a little l the surgical neck of the humerus. The muscles were dissected up, the lar ligament divided, the head of the humerus turned out of the glenoid c and sawed off just below the tuberosities.

The cartilage was dark-colored, softened, and eroded. A sinus ext into the cancellous tissue of the head of the bone. In the centre this tissu softened, easily breaking down under the probe. The glenoid cavity w diseased.

2. *Fistula in Ano, with Hæmorrhoids.* — The patient, a young man, had been troubled with pain at defæcation for a long time. He was supposed to have piles only, but, on examination, a fistula also was found on the right side, opening into the bowel in the usual place just above the external sphincter.

Dr. Cheever applied silk ligatures to five large internal hæmorrhoids after the method recommended and practiced by Allingham, as follows: A tumor was seized and drawn down with a vulsellum, and separated from the skin, muscles, and subcutaneous tissues by cutting up longitudinally with the scissors. The ligature was then applied to the base of the tumor, and included only the vessels and a little mucous membrane on the inner surface of the pile. Applied in this way the ligature usually separates sooner, and is less painful than by the method by transfixion. The incisions being parallel to the vessels, no hæmorrhage results.

The fistula was treated by incising the skin and applying a strong ligature. Had it been cut upon a director in the usual way, some of ths ligatures and hæmorrhoids would have been unavoidably cut, possibly resulting in troublesome hæmorrhage.

3. *Incision in the Globe.* — About ten days before the operation a bar-tender, a young man, during a fight was "gouged" in the right eye in this way: A lock of the front hair was twisted around the assailant's forefinger, and served as a fulcrum while the thumb was applied to the eye. The eye was enormously swollen, and protruded so much that the eyelids could not be closed. There was extensive chemosis, and an opaque, glairy fluid was escaping from an opening in the cornea. The interior of the eye was completely disorganized, and the sight was lost.

Dr. Thorndike made a free horizontal incision into the globe just below the cornea, giving exit to about two drachms of thick, purulent fluid. No pus could be detected behind the globe.

4. *Carbuncles.* — A man, about forty years of age, entered the hospital with two carbuncles on his back, of several weeks' duration. One was two inches in diameter, and situated over the upper part of the left scapula; the other was eight inches in diameter, and situated over the central part of the back. The patient came from the station-house, and had been miserably fed and housed, and was in a very debilitated condition.

The larger anthrax was treated by a free crucial incision, each cut being about five inches long and one inch deep. The smaller one was thoroughly divided subcutaneously with a curved bistoury. The hæmorrhage in the larger one was controlled by sponges, ferric alum, and a firm bandage. At the end of about five days there occurred a pretty free secondary hæmorrhage in the larger carbuncle. It was arterial, but easily controlled by ferric alum and pressure. The anthrax treated by the free external incision improved after the operation much more than the smaller one, which was scored subcutaneously. Both methods of treatment being applied to the same patient would afford a crucial test of the merits of free incisions or subcutaneous scoring. The former risks hæmorrhage, checks extension, and favors granulation by loosening and discharging the slough; the latter is much less positive in its effects.

GEO. W. GAY, M. D.

CLINICAL NOTES.

VIENNA GENERAL HOSPITAL.

A BOY with an extremely large head was recently shown at the poliklinik in Vienna. The child was seven years old, and his head had a circumference of fifty-six centimetres, while the measurement from the depression of the nose to the occiput was forty-five centimetres, and that from ear to ear forty-four centimetres. The sutures and posterior fontanelle were closed, the anterior fontanelle remaining partly open. The face, mouth, and nose were rather small, considering the age of the child. His muscles were tolerably developed, but to a less degree on the left than on the right side, and the left foot was smaller than the right. He was unable to walk, this inability resulting, in the opinion of the physician to the clinic, Dr. Monti, merely from the weight of the child's head. His functions were normal, except that he occasionally vomited. He ate like other children of his age. He had his first tooth at four months, and began to speak at three years. He answered questions intelligently, though perhaps a little slowly. The veins about the head were not particularly prominent, and his pulse was regular. His mother noticed nothing peculiar about his head until he was six weeks old. She was certain that from that time until the age of five or six his head had steadily increased, but had not grown since. He had an elder brother who was no-produced, but who presented nothing remarkable, according to the mother.

At the same clinic a girl about ten years old was shown, suffering from dribbling of urine. This occurred in the day-time, and never at night. The diagnosis made was weakness of the muscles of the bladder; because of this muscular debility, the elasticity of the organ forced out urine, when the patient was in motion, in the upright position. Interrupted electric shocks were given one pole of the battery being applied to the abdomen, and the other inserted in the vagina; the operator remarking that cystitis or urethritis might follow if the wire were introduced into the bladder or urethra. Shocks were given for three minutes; to be increased a minute daily till five or ten minutes should be reached. By the fourth day the patient was able to keep herself dry. was stated that such early success was unusual, but that in three weeks or le one half the cases were relieved. After ten days the patient had not reapplied for treatment.

At the general hospital of this city a young woman applied who had menstruated regularly, but with difficulty, for two years. The uterus was found to be at the left, and a tumor to the right was hard, and gave no appearance of fluid. On the supposition that the growth was a fibroid tumor, an incision was made in the cervical portion of the uterus, extending to the vagina, for its removal. There was at once a discharge of dark blood with clot, and the case was pronounced one of uterus bicornis. The patient died of peritonitis. At the autopsy a uterus bicornis was found; the left horn was rather small, and the right had twice as thick walls, and was distended with clot. There was a right cervical sac rather than canal, which communicated with the vagina only through the cut. The right Fallopian tube was much distended. There was no appearance of metritis.

In the treatment of gleet at the poliklinik, Dr. Auspitz uses an olive-pointed probe, the point consisting of a mixture of tannin and glycerine. This is introduced into the bladder and slowly withdrawn. If pain is felt at any especial part, he considers that to be the seat of unhealthy granulations that are keeping up the discharge, and introduces the probe to that point every day for a few minutes.

He is also experimenting by cutting out all chancres as soon as they are discovered; he includes in the removed tissue some of the healthy margin, in the hope of destroying the disease. These experiments have not yet been continued over a long enough time, or made in a large enough number of cases, to warrant conclusions. If they should prove satisfactory, the results will probably be published.

A heart was recently shown here, the rupture of which had occasioned death. There was an aneurism through which the rupture had taken place, and the walls of which were quite thin. The pericardium was inflamed about the seat of the rupture. The muscles of the heart itself were a little soft, apparently from an old myocarditis.

In Hebra's clinic, a patient with eczema of some duration, affecting all the limbs equally, was treated as follows: One arm was wrapped in rubber cloth, and the other was treated with corrosive sublimate, one grain to the ounce of water. One leg was treated with diachylon ointment, and the other with tar. These methods of treatment have been continued some time, and the leg treated with diachylon ointment is recovering most rapidly, while the arm treated with mercury is the slowest in its progress. E. M. B.

LETTER FROM PARIS.

Messrs. Editors, — Although the excellent paper read by Dr. T. B. Curtis before the Massachusetts Medical Society at the last annual meeting, and published in the number of the Journal of August 7, 1874, leaves but little of practical importance to be said in regard to Guérin's method of cotton-wool dressings for wounds and amputations, still some of your readers may be willing to have this subject again brought to their notice, more particularly as it continues to excite the interest and attention of the profession here. Last May Monsieur Guérin submitted to the Académie des Sciences a paper upon the influence of ferments in surgical maladies, upon which paper a committee composed of such well-known men as Messrs. Claude Bernard, Pasteur, Sedillot, and Larrey, lately presented their report. The Société de Chirurgie, at one of its last meetings, decreed the Duval prize to M. Hervey, a former *interne* of Guérin's, for a very elaborate paper upon cotton-wool dressings, the competitors being unusually numerous, and the essays designated as important. M.

Guérin's paper, which he kindly gave me, considers simply the theory of th dressing; the essay of Hervey mainly discusses the practice. In regard t the former there is, and may continue to be, much difference of opinion amon the best authorities; but the practical usefulness of cotton-wool as a dressin is generally accepted by all, and unlike the more elaborate system of Liste its success is by no means confined to its originator. In a conversation whic I had some days since with M. Guérin, who, allow me to say, is always ver courteous in showing to strangers what he has of interest in his wards, h expressed himself as continuing entirely convinced of the merits of hi system, and quite content to await the verdict of posterity. He insist upon the action of the cotton as a *filter;* the air reaches the wound, but leave upon the way its noxious accompaniments; the pus beneath the cotton undergoes a chemical decomposition, entirely different from putrid fermentation This he supports by chemical experiments. Examined under the microscop as it has been by many of the best micrographs here, the pus is found to hav lost its globules, and presents the appearance of a fatty emulsion. A quantit of fresh pus was carefully inclosed in cotton-wool in such a manner as to avoi previous contact with the external air; at the end of forty-two days it had n putrid odor, and examined under the microscope showed no traces of any living corpuscles; there were neither bacteria nor vibriones nor any other for of those mysterious and now much-dreaded organisms. Another portion o pus taken with less care and preserved beneath a less thick layer of cotton gave out at the end of three weeks the usual putrid smell, and showed unde the microscope great numbers of vibriones. The common result of examination of cases submitted to cotton-wool in M. Guérin's wards corresponds with tha in the first of these experiments, and he claims that where this is not the cas the dressing has been improperly applied. He has renounced the earlier practice of wetting the dressing with disinfecting solutions, as it injures the filtering properties of the cotton. He proposes to give a course upon this subject i April, of which I hope to be able to send you some account.

So much for the theory of cotton-wool; as for the practice, which perhap is more important to the majority of your readers, there is much more unanimity. In the report presented to the Académie des Sciences by M. Gosselin i behalf of the committee, although the theory of M. Guérin is left as an ope question, the practical value of the dressing is abundantly recognized, an recommended to the careful attention of surgeons. The general opinion woul seem to coincide with the statistical deductions of Hervey that the cotton-woo is particularly useful as a dressing in amputations of the limbs when not to high up, less desirable in compound fractures and resections, and to be rejecte in amputations of the breast. For practical details I would again refer suc of your readers as may be interested in this subject to the paper of Dr. Curtis merely reminding them that this dressing has now been in use for nearly fiv years here, and may be fairly considered "to have made its proofs."

Paris presented a curious spectacle the first night of this new year, and on which will be long remembered even by this population, so much accustomed t strange sights. About half past nine in the evening, after a cold but suf [illegible]ne afternoon, rain began to fall, and froze as it fell; in half a hour the asphalt and macadam were converted into a sheet of ice. Locomotion either of man or of beast became exceedingly difficult, and finally impossible. At length, about midnight, when the astonished multitude of holiday-makers who had been spending the evening either with friends or at the theatres came out upon the boulevards to return home, it seemed as if a universal drunkenness had descended upon the population. The cabs and omnibuses for the most part remained stationary, and the people got home when and how they could. The number of accidents, serious and slight, was at first estimated with characteristic exaggeration at between one and two thousand, a number afterwards reduced to a few hundreds. But it was unquestionably a good affair for the surgeons.

Professor Pajot of the faculty here, and for thirty years a very popular teacher of obstetrics, has been induced to renounce his intention of retiring by a very flattering and unanimous demonstration upon the part of the students, from which it may be apparent that the enthusiasm of this body is not entirely confined to politics. G. B. S.

PARIS, *February* 3, 1875.

SUSPENDED ANIMATION IN NEW-BORN CHILDREN.

MESSRS. EDITORS, — There is another method of certainly as much value as that of Marshall Hall, or that of Silvester, or as artificial inflation by mouth to mouth or by the tracheal tube, and much more convenient than either of them; it is not mentioned by Dr. Buckingham,[1] and I believe it is not generally known. My first knowledge of it was from an account published by a London physician who had used it very successfully in the case of his own still-born son. I have employed it many times with great satisfaction. It may be used in conjunction with other methods if desired; still a steady perseverance in its use will generally accomplish all that the others can.

Place the child flat on its back; then putting one hand to support its back and shoulders, apply the other hand to the belly firmly enough to force the intestines backwards and the diaphragm upwards. Just as you are ready to do this, raise the child by the hand, or the neck and shoulders "*sur son séant,*" thus creating an opportunity for a vacuum; then removing the hand from the belly, lower the child on to its back again. Continue these motions alternately until respiration is established. With this rocking to and fro, with the hand first on the belly and then off it, air is heard to enter and leave the chest. It can be continued longer than other methods with less fatigue to the operator, as he sits beside the child, and need not vary his position. Dipping the child first in warm water and then in cold is an excellent additional aid, but often in the excitement of the occasion and in the hovels of the poor, one finds no warm water, or fire, or tubs. Besides, as the lady who came to London to get warm baths for her daughter explained to Dr. Johnson, "In the country they always get the water too hot or too cold!" W. C. B. FIFIELD.

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[1] Boston Medical and Surgical Journal, February 18, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

The following is a bulletin of the diseases prevalent in Massachusetts d ing the week ending March 13, 1875, compiled under the authority of State Board of Health from the returns of physicians representing all secti of the State:—

Bronchitis, influenza, and pneumonia prevail, in greater or less degree severity, in all parts of the State.

Among the specially prevalent diseases, the following are reported.

In Berkshire: measles and diphtheria.

In the Connecticut Valley: rheumatism. The cases of small-pox in H yoke are reported as convalescent.

In the Midland section: scarlatina, rheumatism, and measles. In Uxbri and Upton, erysipelas.

In the Northeastern counties: rheumatism, scarlatina, and measles— of them diminishing in prevalence. An observer in the northern part of M dlesex County associates the subsidence of certain diseases with the cessat of the water famine in that section.

In the Metropolitan section: measles, rheumatism, and scarlatina. T decline reported last week in the epidemic of measles was only tempora the disease is still extensively prevalent. Scarlatina is increasing.

In the Southeastern section: measles and whooping-cough. Small (four cases) is in Fall River.

Since the last report, influenza, measles, pneumonia, and rheumatism h increased in prevalence; scarlatina and whooping-cough are less prevale other diseases remain as before.

Measles is most prevalent in Boston and its vicinity; scarlatina in Worc ter County. F. W. Draper, M. D., Registrar

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COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MARCH 6, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-ra per 1000 during W
New York	1,040,000	651	32
Philadelphia	775,000	384	26
Brooklyn	450,000	211	24
Boston	350,000	140	21
Providence	100,000	37	19
Worcester	50,000	13	14
Lowell	50,000	17	18
Cambridge	44,000	26	31
Fall River	34,200	19	29
Lawrence	33,000	18	28
Springfield	33,000	3	5
Lynn	28,000	17	32
Salem	26,000	11	22

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OME PRACTICAL HINTS CONCERNING THE CARE OF NEW-BORN CHILDREN.

NOTES OF A LECTURE AT THE HARVARD MEDICAL SCHOOL.

BY CHARLES E. BUCKINGHAM, M.D.,
Professor of Obstetrics.

UNDER ordinary circumstances, the first thing to be done to the child is clean it. Babies are born with more or less of that disagreeable lve-like matter sticking to their skins. Sometimes the whole body is overed with it; the hair is filled with it, and the eyebrows. Some-mes, on the other hand, it is hardly to be seen, except in the folds of e groins, in the axillæ, in the cleft of the nates, and about the neck; d in an occasional case you will find it only about the labia, if a female ild, or if a male child, between the scrotum and the thighs. This bstance, known as the vernix caseosa, does not seem to be any more less abundant according to the healthful condition of mother or child. t it must be got rid of, or the folds and clefts will become sore. Water ne will not remove it, neither will any ordinary rubbing with soap. y substances will mix with it, with very slight rubbing, and the use soap and water will then, with perfect ease, remove the mixture. Of e, I have very frequently advised the use of oil alone to clean the new-n child; no soap, no water; a little sweet oil rubbed in with a small of sponge; and as each part in turn has been oiled, and then wiped off r with the towel, the child is as clean as if washed with soap and ter. Many persons have an idea that unless soap and water be used child cannot be clean. But oil is as clean as soap. The object of shing is to get rid of dirt, and it depends upon what the particular t is composed of, whether soap, or oil, or some other substance is the st thing to use for its removal. Alcohol has been substituted for oil dissolve this substance, but the objection to its use is that it dissolves oily matter from the child's skin, and also that it has the effect to chill child. In either case, too much work would be thrown upon the gs of the new-born.

The child being once made clean it is not necessary that it should ve an entire bath daily. Its nates and other parts in the neighbor-od should be bathed often enough to keep them clean, even if it be with every change of napkin; but to strip it, and in a cold day and in a chilly room to torment the little shivering child for a wash, according to an established daily rule, is simply a matter of cruelty.

One point you should give positive instructions upon: that is, the necessity for drying the skin of the child thoroughly before dressing. A good rubbing with the hand, after the rubbing with the towel, is agreeable to the child. A properly dried skin is more likely to escape the sore and cracked condition that young children are apt to suffer from. This cannot be prevented so well by the flesh-powder, the burned flour, or the powdered starch with which nurses are often so particular to dust the child. Indeed, you will find that these applications frequently become acid, and increase or even produce the troubles which they are intended to obviate.

The child should be warmly and in every way comfortably dressed. The still adherent umbilical cord should be sufficiently covered to prevent its soiling the clothing, and as a matter of cleanliness should be made short; if it is not tied before the pulsations in it have ceased, there will be no risk of hæmorrhage from its cut extremity. I never would cut the cord till all pulsation in it was stopped. The open condition of its vessels is a safety-tube for the lungs and heart behind. Having cut it, there is no need of the huge wad of cotton lamp-wicking often wound about it. Indeed, if there were no ligature applied, it is very seldom that any dangerous bleeding would occur. The cord should be short, the ligature small, the covering ample; and if the latter become offensive in a day or two it should be removed.

The first article of clothing put on is usually a flannel or knit swathe or belly-band. It is a very common mistake of nurses to put this on very tight, to prevent, as they say, "rupture of the navel," or to give the child's bowels support. It is as bad as tight lacing in the adult, or worse than that; organs are compressed which require the utmost liberty; the action of the lungs, and consequently of the heart, is interfered with; the child cannot nurse, and you will occasionally be called in to see a "blue baby," not from organic trouble, not from an open valve, but blue and suffocating from compression, that might almost as well be about the neck; and when you get to the house you will find perhaps a little half-suffocated child, whining, or rather moaning, too weak and too much straitened to cry. The herb teas and the spiced waters administered by the nurse have done it no service; but the taking out of half a dozen pins from the belly-band stops the moaning, restores the color, and the child can both feed and sleep. Prevention is better and easier than cure. Strings on the belly-band are better than pins, if either be used; but the best band requires neither, being broad, thick, loose, and elastic, woven or knit of good woolen yarn.

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UNDER ordinary circumstances, the first thing to be done to the child is to clean it. Babies are born with more or less of that disagreeable salve-like matter sticking to their skins. Sometimes the whole body is covered with it; the hair is filled with it, and the eyebrows. Sometimes, on the other hand, it is hardly to be seen, except in the folds of the groins, in the axillæ, in the cleft of the nates, and about the neck; and in an occasional case you will find it only about the labia, if a female child, or if a male child, between the scrotum and the thighs. This substance, known as the vernix caseosa, does not seem to be any more or less abundant according to the healthful condition of mother or child. But it must be got rid of, or the folds and clefts will become sore. Water alone will not remove it, neither will any ordinary rubbing with soap. Oily substances will mix with it, with very slight rubbing, and the use of soap and water will then, with perfect ease, remove the mixture. Of late, I have very frequently advised the use of oil alone to clean the new-born child; no soap, no water; a little sweet oil rubbed in with a small bit of sponge; and as each part in turn has been oiled, and then wiped off dry with the towel, the child is as clean as if washed with soap and water. Many persons have an idea that unless soap and water be used the child cannot be clean. But oil is as clean as soap. The object of washing is to get rid of dirt, and it depends upon what the particular dirt is composed of, whether soap, or oil, or some other substance is the best thing to use for its removal. Alcohol has been substituted for oil to dissolve this substance, but the objection to its use is that it dissolves the oily matter from the child's skin, and also that it has the effect to chill the child. In either case, too much work would be thrown upon the lungs of the new-born.

The child being once made clean it is not necessary that it should have an entire bath daily. Its nates and other parts in the neighborhood should be bathed often enough to keep them clean, even if it be cerebral hæmorrhage, at the ages respectively of fifty-four and fift three. When attacked, he had just returned from a vacation-trip three weeks in the British Provinces; he had not been exposed to col or rain or any other known source of disease, and was feeling unusuall well.

On the 6th of August, 1873, he went to his business as usual. Du ing the forenoon he noticed a feeling in his legs as if they had falle asleep. This feeling came on again and again; and with it he began be a little weak in the legs. Recollecting that his father and sister ha died of paralysis, he was expecting an attack all the morning, althoug nothing beyond these premonitions occurred until about two o'cloc At that hour he was on his way to the station, and hailed a horse-ca but on trying to step upon the platform found that he could not do i He was helped in, rode to the station, and thence by train to his home i the suburbs; was helped into a carriage, and driven to his house, wher he was still able (with assistance) to walk up-stairs to his bedroom, bu when seated was unable to rise from the chair. He was got to bed, an stayed there till I saw him, two days later; the weakness increased somewhat after this, but not much.

When seen by me on the 8th, two days later, his condition was bu little altered. It was evident, in the first place, that the attack wa not of cerebral origin. There was not the slightest evidence of any mental disturance, nor has there been any up to the present day. He had not so much as felt giddy. His spirits were cheerful, and his mind active. The muscles of the face and eyeballs were under perfect control; the pupils were normal in size, and contracted well. Speech was natural. Vision and hearing were without defect.

The bladder and rectum performed their functions normally. The senses of touch, pain, and temperature were normal in the hands, and nearly so in the feet. Reflex contractions could hardly be obtained from the soles. There was a complete absence of abnormal sensations; the tingling he had felt on the day of the attack had passed off, and did not reappear; there was no sensation of numbness or constriction, no muscular twitching or trembling; he felt no pain anywhere, and the spine when percussed was not tender. The pulse was 80, soft and regular; the heart-sounds were normal, temperature in axilla was 98°. The urine was tested a few days later and found to be free from albumen.

The muscles of the neck and limbs, except below the knees, were generally in a condition of semi-paralysis. He lay on his back, almost helpless; could not raise his head from the pillow without some help, could not raise his knees from the bed by flexing the thighs, and the grasp of his hand was very feeble indeed. There was no absolute paralysis of any muscle. Below the knees he seemed to have his full strength. The weakness was much more marked on the left side than on the right.

His condition remained as thus described during the six months of his confinement to the house, except that the paresis of the muscles gradually disappeared. A slight sense of muscular fatigue in the shoulders should be mentioned; this soon left him. Loss of appetite was relieved by nux vomica and cinchona, and subsequently by tincture of iron with strychnia, and Horsford's acid phosphates of lime and magnesia.

On the fifth day of the attack, treatment by the induced electric current was begun, when it was found that the muscles, some of them at least, had already lost a part of their susceptibility to this stimulus. The loss went on increasing; within a week or ten days from the first attack it was perceptible in all the paralyzed muscles, and in some of them it afterwards appeared to become total for a short time. By the twenty-first day the loss had become so great that the galvanic current[1] was substituted for the faradic in the hope of obtaining a more satisfactory reaction. It was found that the galvanic reaction was also diminished, though to a less extent than the faradic; for example, the rectus femoris of the left side required forty cells to produce a feeble contraction, while twenty cells acted strongly upon the corresponding muscles of the son of my patient, a vigorous young man. The galvanic treatment then adopted, and continued until his recovery, consisted in the application of descending current to the spine, and of labile and interrupted currents to the muscles, three times a week; the faradic current was also continued for a few weeks. I subsequently found much advantage in using a hot-air bath long enough to bring my patient into a profuse sweat, directly before making these applications. In these measures, and in the various simple gymnastic exercises which he was able to perform with assistance, I was greatly assisted by his son, a student of medicine.

The reaction to both orders of electric currents seemed extinct in the recti femoris muscles on the twenty-fifth day, but this was partially due to a degree of weakness in the fluids of the batteries; improvement, however, seemed to commence from that period, and to go on steadily. The trapezii, glutæi, and sartorii, were at least equally reduced; the sterno-mastoids reacted rather better, but it was impossible to find any superficial muscle in the neck, shoulders, arms or thighs, that reacted quite well. There was, however, no difficulty in swallowing or speaking, and the act of respiration was performed easily. In each muscle the power to respond to the galvanic shock seemed to improve very rapidly, however low it had fallen at the time of commencing the special treatment. As regards the reactions of the nerves, my observations were defective: it is noted, however, that the full strength of the faradic battery produced but a slight muscular contraction (flexores digitorum) when the negative pole was placed on the left brachial plexus, above the clavicle, and none at all when placed on the right, the positive being put on the back of the neck. This on the sixty-seventh day, when he had lost a good deal in weight, and the deep parts of the neck were very accessible. The median and ulnar nerves reacted perfectly in the fore-arm at a somewhat earlier period. The "exaggerated reaction" was never observed in nerves or muscles.

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[1] From one of Hirschmann's portable zinc-carbon batteries (worked with bisulphate of mercury), of which the action nearly corresponded with that of an equal number of Daniell's cells.

The paralyzed muscles wasted, as is usual; in the course of six weeks this became very marked, and soon afterwards (before the fifty-second day) it is recorded that the hands began to tremble when held out, the balls of the thumbs being first affected. This tremor did not increase much, and at present, after the lapse of fourteen months, is not troublesome. His handwriting is not altered, though he cannot write as fast as formerly. The right hand now grasps the dynamometer with force registered by 70, which is more than one half of the normal register for a person of his habits. On the fiftieth day it marked only 25, on the fortieth 20, and much less on previous occasions. His general improvement was very gradual, and it was six months before he was able to ride out. He resumed his business by degrees, and is now attending to it pretty much as before the attack, retaining his old habit of standing at his desk instead of sitting. He has lost twenty-five pounds in weight, chiefly of fatty tissue. The muscles are somewhat flabby, but not remarkably so for a man of his pursuits. The general health remains quite good, and the diminution in the weight of his body is regarded by him with satisfaction rather than the reverse.

In making the diagnosis of this case we can at once exclude the following affections: —

1. Progressive muscular atrophy. Not to speak of the totally different mode of invasion and of progression, the electric reaction by itself would be conclusive evidence against this diagnosis.

2. Lesion of the encephalon. There was no evidence whatever to indicate such lesion.

3. Acute myelitis. Under this term we commonly understand an affection involving the greater part if not the whole of the thickness of the spinal cord. The patient has fever, tenderness and pain in the back, paralysis of the lower limbs, bladder, and rectum, gangrene and sloughing of the nates, loss of sensibility in the paralyzed limbs, with an exaggerated reflex action, and an unimpaired electric reaction in the same limbs. The present case is as remote as possible from such a group of symptoms.

4. Hæmorrhage in the cord, independently of myelitis, hardly occurs. Its consequences would be similar to those of acute myelitis. And it is very difficult to see how embolism could have produced the present group of symptoms.

5. The implication of the posterior columns of the cord, in any morbid change, should be followed by impairment of the power of coördinating muscular movements, or by loss of tactile sensibility, neither of which symptoms was present.

6. The posterior nerve-roots were certainly not affected.

7. The posterior gray matter of the cord. Lesion of this organ would involve a loss of the sense of pain.

8. The lateral white columns. Chronic sclerosis of these organs causes wasting of the muscles, and a loss of motor power; but this loss of power comes on quite slowly, and is usually accompanied by rigidity of certain muscles, and spontaneous pains, and formications, which did not occur in our case. The electric reaction, also, is retained till the very last in this complaint, the "progressive lateral sclerosis with muscular atrophy" of Charcot. In the presence of tremor and muscular wasting, and still more in the absence of fever, of complications of the bladder or rectum, and of eschars, the disease as described by Charcot resembles the present case; but his dictum is positive, that "wherever you meet with lateral sclerosis, contraction of the muscles is sure, sooner or later, to show itself in a more or less marked degree."[1] And contractions have not occurred in our case.

We have now narrowed our inquiry to the anterior cornua and columns of the spinal cord. Unless, indeed, we are inclined to seek in the peripheral nerves and the muscles for the causative lesion; but I think my audience will spare the argument upon this head, and suffer me to proceed directly to the statement of a distinct and nearly constant lesion, occurring in those parts of the spinal cord in which we have been led *a priori* to expect it. In nine of twelve[2] autopsies made upon children, the nerve-cells occupying the external portion of the anterior cornua, and the nervous reticulum formed by their prolongations, have been found atrophied; in the other three, the anterior roots were atrophied, and the anterior columns sclerosed. To this add, as more or less prominent accompaniments, proliferation of the connective nuclei, dilatation and fatty degeneration of blood-vessels, and distinct limited foci of softening, in the anterior cornua. In Gombault's case, occurring in an adult, granular degeneration of the ganglion cells of the anterior cornua was observed throughout the length of the cord, while the white substance and posterior gray substance were uninjured. For the sake of fairness it should be added that three apparently trustworthy examinations have been reported by Bouchut and Kétli, in which the spinal cord of children was found free from microscopical lesions. The evidence, however, largely preponderates in favor of that view of the pathology of the disease which permits us to name it an "inflammation of the motor tract of the spinal cord." [1]

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[1] London Lancet, August 1, 1874.

[2] For a *résumé* of literature, see Dr. Mary Putnam Jacobi's exhaustive article in the American Journal of Obstetrics for May, 1874.

It is needless to recapitulate the points of resemblance between "infantile paralysis" and the case I have related; in fact, the comparison has already been drawn, in the sketch of the disease with which the article opens. There are, however, some points of apparent disagreement. *Fever* often attends the onset in children; it was absent in this case, but among the similar cases hitherto reported in adults there are several in which fever was a very marked initial symptom. *Convulsions* sometimes occur in children; but they form so frequent an accompaniment of the acute diseases of infancy as to possess very little diagnostic importance. *Pain* in the back and limbs is another initial symptom, which was observed in a number of the adult cases. And the *deformity* which occurs so often in children is paralleled in several adult cases, as in No. LXXI. of Duchenne, in which the attack, brought on by exposure to cold, was followed by wasting of the flexors of one foot, with talipes equinus; as also in the one briefly mentioned by Dr. Jacobi,[2] with slight varus equinus and clawed hands.

Seguin has enumerated fifteen cases in adults, and has added six observed by himself. The latter exhibit symptoms of disturbance of sensation to a greater extent than is usual; and in one case the face, tongue, and muscles of the orbit were paralyzed, which has not been observed in other cases. The latest that has come to my knowledge is one by Frey, quite typical in every respect except its very gradual approach and progress; it is the one alluded to in the beginning of this article, under the name of "poliomyelitis." Of the list given by Seguin, I am compelled to reject Nos. VIII. and IX., cited from Moritz Meyer, whose account is excessively meagre; this leaves nineteen, or, with Frey's case and the one now given, twenty-one, of which twelve were acute and the others subacute or chronic.

In regard to the prognosis of this disease in adults, it is important that the physician should clearly distinguish cases of ordinary myelitis, which it is not hard to do. What has been called "acute ascending paralysis" can with difficulty be distinguished at the outset from the present disease; its leading feature consists in a tendency to spread from one to another region of the spinal cord, either upwards or downwards, and to produce death in a week or two by paralysis of the muscles of respiration; if this tendency is not present, life will almost certainly be spared. Even in acute ascending cases, there is room to hope that the process may be arrested. As for the relief of local paralysis, the prospect is good in proportion as we succeed in making the muscles react under electrical stimulation.

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[1] As proposed by Seguin in his recent able monograph, read before the New York Academy of Medicine, November 5, 1874, and printed in the Transactions of the Academy.

[2] Loco citato, pp. 21, 22.

RECENT PROGRESS IN THERAPEUTICS.[1]

BY R. T. EDES, M. D.

Digitalis. — Schmiedeberg[2] has made a series of investigations upon the active principles of digitalis. All of the commercial so-called digitalins are more or less composite substances, and contain different proportions of at least four active principles, to say nothing of inert constituents. Of these, digitonin is very similar in its properties to saponin. This forms in most cases the *bulk* of the commercial soluble digitalin. [This is a somewhat remarkable circumstance, since saponin has been shown by Köhler to be in many points the physiological antagonist of digitalin, though of what kind he does not say.[3] — REP.]

Digitalin is the most important constituent of Homolle and Quevenne's digitaline, and with digitalein produces the characteristic action on the heart of the various kinds of commercial soluble digitalin. Alone it is almost insoluble in water, but partially dissolves in the presence of digitonin and digitalein. Digitalein is also found in the commercial soluble digitalin. Digitoxin is the most active principle of digitalis, and the crystalline digitalin of Nativelle is chiefly, but not wholly, composed thereof.

Ergot. — Buchheim[4] has sought anew the active principle of ergot. It is contained, as nearly all observers are agreed, in the watery extract, and Buchheim obtains it therefrom, by processes which it is unnecessary to detail, in a state of tolerable purity, it being mixed only with some remains of leucin and some inorganic bodies. He names it, of course, ergotin (which is neither the ergotin of Wiggers nor that of Bonjean, nor yet the ergotina of Wenzell), and says that it is closely analogous to animal gelatine, being a modification of the gluten in the healthy rye, produced by the fungoid growth of which the ergot consists. The ergotina and ecbolina of Wenzell are contained therein, but are, as he (Buchheim) says, one and the same substance. The irritant effects of the preparations of ergot when injected subcutaneously are due, according to Buchheim, to the strong acid reaction which is produced by free lactic acid, and he recommends accordingly that any preparation which is to be used hypodermically should be carefully neutralized with soda.

Buchheim looks upon the processes by which the material designed for the nutrition of the healthy grain of rye is transformed by the ergotic fungus into numerous and easily decomposable bodies, as analogous to putrefaction, and accordingly places ergotin among the putrid or septic substances, which we have heretofore known only as morbific and not as therapeutic agencies. He thinks that it may be possible to obtain from putrefying blood a substance which shall exhibit the activity of ergot.

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[1] Concluded from page 323.

[2] Archiv für experimentelle Pathologie und Therapie, iii. 16.

[3] Archiv für experimentelle Pathologie und Therapie, i. 138; Boston Medical and Surgical Journal, September 25, 1873: Report on Therapeutics.

[4] Archiv für experimentelle Pathologie und Pharmakologie, iii. 1.

H. Köhler[1] has compared the action of the watery and the alcoholic extracts of ergot as represented respectively by the ergotins of Bonjean and Wiggers. Both diminished the temperature, contracted the pupil, and retarded the respiration. Both diminished the irritability of the peripheral sensitive nerves. The actions on the circulatory system, namely, irritation of the vaso-motor centre, slowing of the pulse, contraction of the arteries, and finally cardiac paralysis, belong exclusively to the watery extract. The alcoholic extract affects especially the intestinal tract. As to the action on the uterus, Köhler considers the heightened irritability of the peripheral motor nerves caused by the alcoholic extract as having an accessory value, while the "anæmic irritation of the nerve centres due to the watery extract" is the chief cause of the uterine contractions.

For general therapeutic application, therefore (as a hæmostatic, etc.), the watery extract is by far the best, while for obstetric purposes it is desirable to employ both, or, in other words, the ergot in substance.

Emetics. — Anything in the nature of a generalization, which is at the same time simple and yet not chiefly based in the imagination, is a most refreshing discovery in the midst of the enormous mass of isolated and contradictory facts and fancies with which pharmaco-dynamics has been of late years enriched. The exceedingly depressing effect upon the muscular system of tartar emetic, sanguinaria, lobelia, veratria, and many other substances which act as emetics, is well known. Harnak[2] has examined several other emetics with reference to their effect on the muscular system, and adds to the list several metallic salts, especially of zinc and copper. He states that of the metallic salts which do not have an intense local action, those alone which have a specific emetic effect possess a marked action in small doses upon the striated muscular fibre. Furthermore, all substances that have a specific emetic action stand at the same time in close relation to the striated muscular fibre, since even in relatively small doses they destroy its excitability.

Jaborandi. — M. Albert Robin[3] gives the results of a somewhat elaborate study of the new diaphoretic, jaborandi. The sweating does not come all at once, but gradually, and after having been announced by redness and heat of the face, beating of the temporal arteries, and a feeling of fullness in all the parts which sweat.

The beginning of the perspiration occurs in from five minutes to an hour, the average being twenty to thirty minutes. The maximum is attained in from twenty minutes to one hour and thirty-five minutes, the average being forty-five minutes. The duration is more variable, but is, on an average, two to two and one half hours. The total quantity of perspiration is roughly estimated at from three hundred to five hundred cubic centimetres (nine to fifteen ounces).

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[1] Virchow's Archiv, lx., 389; Centralblatt, 1874, No. 43, page 685.

[2] Archiv für experimentelle Pathologie und Therapie, iii. 44.

[3] Journa de Thérapeutique, Nos. 23 and 24, 1874.

Rheumatic patients sweat more easily than albuminuric. The perspiration comes readily in emphysema, cardiac and pulmonary affections, and in some diseases of nervous centres, as cerebro-spinal meningitis. On the other hand, the constipated and dyspeptic sweat with difficulty, and those poisoned with lead hardly at all. Further investigations on this point should always embrace a special inquiry as to whether the drug has been vomited, which sometimes happens.

In ninety observations, omitting some cases where the preparation was faulty or was vomited, four cases occurred where the sweating was insignificant. In three of these habituation had taken place; the fourth was a case of Bright's disease, where the effect was very slight. In one case only the sweat was completely wanting. This was a case of acute rheumatism, in which the natural sweating of the disease had been very profuse, and, we may suppose, the glandular apparatus of the skin exhausted.

The sweat, which is always acid at the beginning, becomes neutral, or even clearly alkaline, before the end of the process. In six analyses, the proportion of urea contained in the sweat was from 2.50 grammes to 2.90 grammes per litre, the normal proportion being only .48 of a gramme per litre, or an excess of from .67 of a gramme to 1.13 grammes for the whole amount eliminated during the perspiration. The chlorides were also in excess, while only traces of carbonates and phosphates were found.

Feeble patients are sometimes debilitated by the excessive sweating, although no really unfavorable results were observed. No sweating was produced by jaborandi in the dog or guinea-pig, which normally do not sweat, except that the sebaceous glands around the anus of the first-mentioned animal took on an increased activity. On two horses in bad condition no effect was observed.

The salivation begins before the sweating, in from two to thirty-five minutes, usually thirteen, attains the maximum in about forty, and usually ends before the perspiration. During the salivation the mouth is warm, and the submaxillary glands are a little tense. The quantity of saliva may vary from one hundred to eleven hundred cubic centimetres, and seems to be usually in direct proportion to the quantity of sweat, although exceptions are numerous. It contains an abundance of the usual salts and of ptyaline, as well as a small excess above the normal of urea.

M. Robin notes, as the usual sequence of the action of jaborandi, a temporary dryness of the mouth. In some rare instances, the swelling of the salivary glands is excessive and painful, lasting from a few hours to two days and a half. The precise nature and cause of this occurrence do not seem to be as yet well determined. M. Robin speaks of a congestion and engorgement (with secretion) of the glands occurring at the same time as being a probable condition.

Certain effects have been noticed on the part of the eye and its appendages. The tears usually flow freely, even on to the cheeks. The pupil often contracts when the sweat becomes general, and remains contracted for some time. This action, however, is often wanting. Disturbed vision may depend simply on the increased lachrymation. In one case, however, there was almost complete abolition of vision for an hour and a half, and in another diminution, with muscæ volitantes like snow-flakes. These were not referrible to tears.

MM. Hardy and Ball[1] state that the urea of the urine is generally decreased during the action of jaborandi, although they found only small quantities of it in the sweat and saliva. They give, however, 1.14 grammes of urea as the average found in the sweat. M. Rabuteau objects to these experiments that the subjects were not placed on a uniform diet, and also that they had taken coffee, which in itself diminishes the urea of the urine. M. Rabuteau does not believe in an action of jaborandi on the excretion of urea. He thinks, besides, that it paralyzes the smooth-muscular fibres, and acts in an opposite direction to ergot.

M. Gubler finds that jaborandi may be made to act as a diuretic by being given in small and repeated doses.

M. Cornil derived much advantage from it in a cold in the head, with abundant mucous secretion.

M. Fereol[2] has experimented twenty-eight times on eight patients. He has always used a cold infusion, and smaller doses (thirty grains) than are usually given. Great salivation was produced in all cases. The sweating was less constant and less energetic; none in one case, slight in another, moderate in three patients, and really profuse only in four. One man took it fifteen times in about six weeks. The urinary analyses were hardly numerous or careful enough to give much important information on the action of the drug upon the solid constituents of the urine. Its therapeutic action does not appear to have been so decided; one case experienced some relief of chronic rheumatic (or syphilitic) pains. In a case of acute rheumatism the pains diminished after the sudation and salivation, but an epigastric oppression and pain, pointing to an aggravation of pericarditis, caused a suspension of the treatment.

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[1] Journal de Thérapeutique, No. 23, 1874.

[2] Journal de Thérapeutique, January 25, 1875, page 45.

Other cases apparently experienced little or no benefit.

M. Carville[1] endeavored to ascertain the mode of action of jaborandi by experiment upon the submaxillary gland. Canulæ were placed in the ducts of the gland, the animal having been curarized, the upper cervical ganglion of the sympathetic removed, and the pneumogastric cut, as well as the lingual nerve above the point where it sends filaments to the submaxillary gland. A galvanization of the cut nerve produced an active secretion from the gland, showing that it was in good order. An injection of two grains of jaborandi at once caused a flow of limpid saliva. A subcutaneous injection of sulphate of atropine being then made, the salivary secretion was immediately checked.

As a previous somewhat similar experiment, in which the lingual alone was cut, showed that the drug had no special influence on the lingual nerve, so the present one excluded the sympathetic, and only two alternatives remain to explain its action, namely: first, its effect on the glandular tissue; second, an effect on the termination of the nerves. [The action of the atropine speaks strongly in favor of the latter. — Rep.]

A parcel of jaborandi recently imported from Brazil to England renders it probable that the drug is derived, either as asserted by the French authors, from the Pilocarpus pinnatus,[2] or a nearly allied species. It possessed the properties of the true jaborandi in a high degree. The chemistry of this drug is not fully worked out, but it appears probable that its active principle is not wholly extracted, and consequently the drug not fully utilized, by the ordinary method of infusion.[3]

THE PROTOPLASMIC THEORY OF LIFE.[4]

The author of this work, although lately President of the Microscopical Society of Liverpool, and evidently an ardent worker in histology, modestly disclaims originality as to fact or theory, and states as his object, "to place before men of general scientific culture the idea that every action properly called vital, throughout the vegetable and animal kingdoms, results solely from the changes occurring in a structureless, semi-fluid, nitrogenous matter now called protoplasm."

Of this doctrine the author regards Fletcher as the prophet and Beale the expounder; while credit for aiding the exposition is given to Schleiden and Schwann, to Mohl and Naegeli, to Haeckel and Huxley, in varying degree, and, upon the whole, with impartiality.

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[1] Journal de Thérapeutique, January 25, 1875.

[2] Boston Medical and Surgical Journal, September 24, 1874: Report on Therapeutics.

[3] Pharmaceutical Journal, January 16, 1875, page 569.

[4] *The Protoplasmic Theory of Life.* By John Drysdale, M. D., Edin., F. R. M. S. London: Baillière, Tindall, and Cox. 1874. 12mo. Pages 288.

Naturally the matter of nomenclature receives attention. It appears, although not so categorically stated by the author, that during the past forty years the term *cell* has had the following meanings: —

1. A sack of protoplasm.
2. A sack of protoplasm containing a smaller sack, the *nucleus.*
3. The above containing a still smaller sack, the *nucleolus.*
4. The above containing a yet smaller particle, the *nucleolinus.*
5. A sack, the protoplasmic contents of which have been replaced by fat or starch or salts or pigment granules.
6. A sack which has lost its contents and has been compressed into a *scale.*
7. A mass of protoplasm having a nucleus, but no envelope.
8. A mass of protoplasm with *neither envelope nor nucleus, nor trace of organization of any kind.*

Finally, in strict language, a *hollow sack* would be a cell, and one is almost surprised that some unprofessional and hard-headed critic has not called attention to this heterogeneous nomenclature, and caricatured the basis of our present doctrines of life and organization as a gigantic cell, substituting the sibilant for the initial letter.

In view of the above-mentioned discrepancies, it may be noted that Küss prefers the term *globule;* but its brevity as well as priority will probably cause cell to be retained. At present, as is well stated by Cleland, "the protoplasmic element has assumed an enormous importance, casting the nucleus into the shade; while the reign of the cell-walls has come to an end altogether."

With regard to the nucleus and nucleolus, the author, in a foot-note (page 58), thinks it has been shown that in *Paramœcium* the former is the *ovary* and the latter the *testis;* so that among even these low infusoria, a true sexual reproduction may alternate with fission.

The word protoplasm seems to have been first employed in 1844 by Hugo von Mohl, to designate the active contents of vegetable cells. But its distinctively vital characteristics were, according to our author, plainly set forth by Fletcher in 1835. "The property of vitality is restricted solely to a universally diffused, pulpy, structureless matter, similar to that of the ganglionic nerves and to the gray matter of the cerebro-spinal nervous system;" and he denies "any direct participation in irritability or vitality to those peculiar aggregations of matter which go to form respectively the cellular, dermoid, mucous, serous, vascular, fibrous, osseous, cartilaginous, or muscular tissues," "and also to the white matter of the nerves."

These quotations are given because to most of us Fletcher's Elements of Physiology is probably as unknown as it was to Beale before the year 1869. Should the views of the latter prove correct, not the least interesting feature of their history will be their almost exact prefiguration by Fletcher.

Beale, in 1860, proposed to call protoplasm *bioplasm,* or germinal or living matter; to designate all cell-walls and fibres as formed material, no longer endowed with vitality. Our author thus states Beale's limitation of the terms: "The living matter of Beale corresponds to the following histological elements of other authors: the viscid nitrogenous substance, within the primordial utricle, called by Von Mohl protoplasm; the primordial utricle itself, in

Naegeli's sense of that term, namely, the layer of protoplasm next the cell-wall; the transparent semi-fluid matter occupying the spaces and intervals between the threads and walls of those spaces formed by the so-called vacuolation of the protoplasmic masses; the greater part of the sarcode of the monera, rhizopoda, and other low organisms; the white blood-corpuscles, pus-corpuscles, and other naked wandering masses of living matter; the so-called nucleus of the secreting cells, and of the tissues of the higher animals, and many plant-cells; the nuclei of the gray matter of the brain, spinal marrow, and ganglions, and the nuclei of nerve fibres."

"And the name cannot be given to any substance displaying rigidity in any degree, from the softest gelatinous membrane up to the hardest teeth-enamel; nor to anything exhibiting a trace of structure to the finest microscope; nor to any liquid; nor to any substance capable of true solution."

With a qualification respecting the muscular tissue (to be referred to presently) we have no objection to urge against the above definition of true protoplasm.

To a great extent the volume is to be regarded as a critical exposition of Beale's doctrines. Our author's admiration for that most able, enthusiastic, and industrious histologist does not wholly blind him to his weak points, as may be seen by the remarks upon pages 52, 78, 126, 127, 167, and 200. But nothing less than a very strong prepossession could cause him to follow Beale in his views as to the structure and properties of muscular fibre. He adopts Beale's opinion that only protoplasm is stained by carmine, and quotes (page 132) his assertion that muscular tissue presents no indication of protoplasmic contents, and that it is not tinged by carmine. But after vainly, as it seems to us, endeavoring to explain Beale's "electro-motor" theory of contraction, he admits (page 171) that "the common theory has at first sight nearly everything in its favor, for *all protoplasm is contractile and gathers itself into a ball under stimuli*" (the italics are ours); "the muscular fibre also contains what to the microscope appears to be protoplasm, and is said even to take the carmine (see page 132)."[1] Certainly, if there is any tissue in which we should look for a living matter, whose most conclusive sign of life is contractile movement, it is the muscular tissue.

Respecting the mode of termination of nerve-fibres upon muscle, Beale differs from many other histologists in holding that "in no case are there nerve ends, but always plexuses or net-works, which are never in structural continuity with the contractile tissue of the muscle." This question has now a new interest from the fact that (as stated in the JOURNAL of March 4th, page 263) Gerlach has found gold to affect the nerve and the muscle alike; and that he quotes, with approval, Kleinenberg's brilliant generalization that "muscles are the contractile terminal expansions of nerves."

The latter part of the book under consideration is occupied with a somewhat dreary and unprofitable discussion as to the nature of life, involving metaphysical and theological questions which need not be here presented. Were this part omitted, and were the rest rearranged to some extent, so as to be fuller in some places and clearer and more concise in others, and if, finally, a few typical figures were introduced, we think the author's object, as already quoted, would be fairly attained. The work is chiefly valuable as a fair historical sketch of the steps and phases of the theories respecting the "physical basis of life," since the cell was discovered, and since the relative importance of its different elements has been under discussion. B. G. W.

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[1] The page referred to is the very page on which is quoted Beale's opinion to the contrary.

◆

PURDON ON CUTANEOUS MEDICINE.[1]

THE author's prefatory remarks may fairly enough be taken as descriptive of the character of this book. "The various chapters composing this little work," he says, "were given chiefly as lectures in the summer at the Belfast General Hospital, or appeared as essays and papers in the *Medical Journal.* Whether wisely or not, I have collected all into one volume, adding such extracts from well-known authors as will, I hope, prove interesting and valuable additions to the matter treated of."

He has in this way brought together much material that is not to be found in any other book on skin diseases, but with it a good deal of mere theorizing and unsatisfactory observation. It is arranged, moreover, with little system, and can scarcely be said to have been digested at all. Dr. Purdon, who was one of the editors of the late *Journal of Cutaneous Medicine,* seems to have been an extensive reader of his exchanges and other medical journals, and to have made a note of nearly everything they contained relating to dermatology. We find, accordingly, that the opinions of all sorts of writers are quoted in connection with every disease the book treats of, and that they have often more to say upon the subjects than the author himself; indeed, some chapters are almost wholly made up of the opinions of others. That on seborrhœa, for instance, is almost literally taken from the pages of the JOURNAL — the translation of Kohn's article upon this disease. The author in many instances, moreover, has not even consulted the original works, but has been content with the statements of others concerning them. Thus, a portion of his chapter on lupus consists of the views of Volkmann, but instead of stating directly what this important "clinical lecture" expresses, he gives an abstract of a review of it from *Lo Sperimentale.* So, too, in connection with prurigo, he attempts to give the results of Dr. Derby's investigations, but really quotes in part the opinions expressed in this journal by the writer of the review of Dr. Derby's paper.

The book would more properly have been called a collection of the views of some of the modern writers on skin diseases, or an abstract of late advances in dermatology. But even in the latter sense it must be considered incomplete, for many of the latest and most valuable observations are not to be found in its pages.

On the other hand, the book does contain much that is interesting and that may not easily be found elsewhere, and although it cannot be regarded as a complete manual of skin diseases for the use of either student or practitioner, or as a commendable system of lecture-instruction, it will be in some respects a valuable addition to the physician's library.

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[1] *A Treatise on Cutaneous Medicine and Diseases of the Skin.* By H. S. PURDON, M. D., Physician to the Hospital for Skin Diseases, Belfast, etc. London: Baillière, Tindall, and Cox. 1875. 12mo. Pages 272.

Not a few errors of the proof-reader are noticeable throughout the work.

J. C. W.

◆

DUTCHER ON TUBERCULOSIS.

THIS book[1] contains apparently the talk of an old gentleman (we beg the professor's pardon if he is not old), not only on tuberculosis, but almost everything else, a very liberal admixture of sentiment, poetry, and religion being thrown in. We can conceive that it would be a pleasure to spend an evening with Professor Dutcher, and hear his impressions on various topics relating nearly or remotely to medicine, but his friends made a mistake in letting him publish a book. It could only be criticised by re-writing it. It adds nothing to our knowledge, unless we accept the assertion that "the infiltrated variety" . . . . "can be easily demonstrated by the microscope to be tubercular," and are willing to believe that the author is not mistaken when he says, "When any one will show me a caseous mass taken from the lungs of an individual who during life has manifested marked symptoms of phthisis, that does not contain tubercle-cells, then I will embrace the theory of the inflammatory origin of pulmonary tuberculosis." By the way, we would remark in this connection that the professor's illustration of "a section of lung magnified two hundred and fifty diameters, showing the pulmonary air-vessels filled with tubercular corpuscles," looks very much as if it was not one of his own, but had been copied from Hughes Bennett.

◆

THE TREATMENT OF PLEURISY.[2]

DR. CORSON, when on service at the New York Dispensary, from 1854 to 1859, treated over five hundred cases of pleurisy. He believes that the absorption of pleuritic effusion was best promoted by the internal use of the iodide of potassium, and the application of one of the following "paints."

The milder croton-oil paint, for children, females, or sensitive males, is made thus: —

Olei crotonis tiglii	ʒ j.	
Etheris sulphurici fortioris	ʒ ij.	
Tincturæ iodinii	ʒ v.	M.

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[1] *Pulmonary Tuberculosis: its Pathology, Nature, Symptoms, Diagnosis, Prognosis, Causes, Hygiene, and Medical Treatment.* By ADDISON P. DUTCHER, M. D., late Professor of the Principles and Practice of Medicine in the Cleveland Charity Hospital Medical College, Ohio. Philadelphia: J. B. Lippincott & Co. 1875.

[2] *On the Treatment of Pleurisy; with an Appendix of Cases, showing the Value of Combinations of Croton Oil, Ether, and Iodine, as Counter-Irritants in Other Diseases.* By JOHN W. CORSON, M. D. New York: Wm. Wood & Co. 1874. Pages 31.

To be applied, two or three coats at a time, with a camel's-hair brush, over a small surface once a week.

The stronger croton-oil paint is composed as follows: —

Olei crotonis tiglii	ʒ ij.
Etheris sulphurici fortioris	ʒ iv.
Tincturæ iodinii	ʒ ij.
Potassii iodidi	℈ j.
Iodinii	gr. x. M.

Considering the statement with which the essay begins, that "careful statistics from great charities have helped to fix the real value of many remedies," one is surprised not only at the entire lack of them, but also especially at the observations in the appendix, of which the following is a fair sample: "Chronic diarrhœa is known to be occasionally very persistent, especially if it is complicated with *tenderness of the abdomen.* Two lady patients were slowly recovering from protracted typhoid attacks, with teasing discharges from the bowels for weeks. Local paintings, steadily maintained over the tender spots, with *gentle opiates, bismuth, pepsin,* and *delicate astringents* and *tonics,* and a *milk diet,* were at last rewarded with gratifying restoration to health"! (The italics are ours.) And these cases are recorded as illustrations of the action of the croton-oil paint. *Mirabile dictu!*

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RINGER'S THERAPEUTICS.[1]

In the preface to this the fourth edition of his work, the author states that he has kept to the original plan of the work, which was to make it as practical a handbook as possible. Besides endeavoring to incorporate the important discoveries and new information which have been made known since the publication of the previous edition, he has added chapters on phosphorus, croton-chloral, and hamamelis. In turning to these chapters we find that the article on phosphorus describes the symptoms and effects of both the acute and the chronic forms of poisoning by this agent. He quotes Wegner's views regarding the necrosis of the jaw to which workmen exposed to the fumes of phosphorus are liable. Wegner believes that the necrosis results from the direct action of the phosphorus on denuded bone, and that it will not set in unless, from wounds or from carious teeth, some of the soft tissues are destroyed, thus enabling the phosphorus to reach the exposed bone. As a therapeutic agent attention is especially directed to the alleged utility of phosphorus in neuralgia.

Regarding croton-chloral, Dr. Ringer states that he has employed it largely and very successfully in facial and occipital neuralgias. Concerning the dose conflicting statements have been made. He has usually given five grains every two or three hours, and sometimes hourly.

The author has found hamamelis to arrest hæmaturia in four cases which had resisted many other remedies. He has also known it to be singularly successful and prompt in arresting the bleeding from piles, even when excessive and amounting to half a pint a day, repeated almost daily for months and years. In piles it should be employed either as a lotion or as an injection, as well as taken by the mouth.

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[1] *A Handbook of Therapeutics.* By SIDNEY RINGER, M. D., Professor of Therapeutics in University College, Physician to University College Hospital. Fourth Edition. New York: Wm. Wood & Co. 1875. Pages 632.

Dr. Ringer is an enthusiastic believer in the efficacy of drugs, and writes with much confidence concerning the therapeutic value of many of them. For instance, in writing of the sulphides he states that they appear often to arrest suppuration, and in threatening inflammation avert the formation of pus. Their influence is still more conspicuous after the formation of pus; for they then hasten maturation, and diminish and circumscribe the inflammation.

Under "Dietary for Invalids" several pages of formulæ are given for the preparation of food for the sick. Copious indices of medicines, and of the diseases in which they are useful, add much to the value of the work.

The book is written in a way which cannot fail to please the reader. We wish we could feel that experience justified one in having that confidence which Dr. Ringer evidently possesses in the efficacy of medicines, in nearly every case, to accomplish the desired results.

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REPORT OF THE WORCESTER LUNATIC HOSPITAL FOR 1874.

This report, like those of all State hospitals, being addressed to the legislature, deals mostly with matters of administration, details of improvements, and prospective wants. The medical profession as a rule finds in such documents only incidental instruction in that which concerns insanity simply as a disease. We may glean something from the usual table of causes in this report, particularly as a column is appended of the number "predisposed" to insanity as distinct from the directly "hereditary" cases. Wherein this predisposition consists is not explained, but no doubt it would be found due to hereditary conditions short of or differing from actual insanity, such as intemperance or other nervous diseases in the direct line of ascent, or in collateral branches.

Of four hundred cases the cause was unascertained in one hundred and thirty. Of the remaining two hundred and seventy there was predisposition in one hundred and sixty-two, or just three fifths. This includes thirty-eight directly hereditary, and is about the usual proportion. The causes were in fifty-three cases moral rather than physical. That is, in one fifth of these cases the disease, insanity, seems to have originated in influences which affect the mind primarily, such as domestic trouble (fourteen), fright (one), grief (five), disappointment (one), pecuniary trouble (ten), religious excitement (nineteen). Females were almost exclusively affected by domestic trouble, males only by pecuniary trouble, both alike by religious excitement.

Of the four fifths affected by physical causes, *i. e.*, of two hundred and seventeen cases, thirty-seven were attributed to intemperance. Of these, seventeen were predisposed, whether to intemperance or to insanity the report does not state. The fact is significant in any light, either as showing the hereditary nature of habitual intemperance, or the frequency of intemperance as a symptom of inherited insanity.

Without going further into detail it can but be remarked that if four fifths c the cases of insanity are due to physical causes, the responsibility for the prevention of mental disease rests with the general profession quite as much as wit specialists and hospital superintendents. The latter are often charged wit neglect in this direction, but it would seem that mental hygiene does not diffe so much from physical hygiene after all. Let the body prove sound for two c three generations, and sanity of mind will follow as a matter of course. Insanity is in fact a physical disease, *i. e.*, a disease of the brain in all case The latest definition is that of J. Batty Tuke, Morrisonian Lecturer at Edinburgh.[1] He says, "Insanity consists in morbid conditions of the brain, th results of defective formation or altered nutrition of its substance, induced b local or general morbid processes, and characterized especially by non-deve opment, obliteration, impairment, or perversion of one or more of its psychic functions." This, of course, includes the transient insanities which we ca delirium, coma, and convulsions.

The causes of insanity in its more chronic forms are those which in person not predisposed might give rise to physical rather than mental disease. Th predisposition is due to similar causes acting through two or more generations, and affecting the cerebral organization especially. Individuals with predisposition are liable to become insane on slight physical provocation, jus as some patients are prone to delirium from slight causes. The so-calle moral causes act on this unstable condition of the nerve-cells in a simila manner — excitement, loss of sleep, impaired nutrition, exhaustion, and consequent loss or irregularity of function.

The report states that one wing of the new hospital will be completed nex fall.

T. W. F.

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SANITARY MATTERS IN SAN FRANCISCO.[2]

In this report are carefully collected many interesting facts, vitiated somewhat, as is commonly the case in our cities, by imperfect registration. Th death-rate of the city for the seven years past was a trifle less than 21 to eac 1000 inhabitants, while that of Boston for eight years ending in 1872 wa 23.5. This difference is hardly as great as would be expected when we consider that San Francisco as a city is hardly a generation old, that the extrem in temperature from June to December were respectively 85° and 30° abov zero, Fahrenheit, and that during the hottest night the mercury stood at 66 at ten o'clock. The tables show at a glance the important points, which a rendered more striking by comparison with other cities. It is a satisfactio to see a table of deaths (of those under seventeen years of age at least) b wards, indicating the operation of local causes of disease; and, from lon habit, one almost expects the explanation given of the great mortality in Wards VII. and X. in bad sewerage and defective drainage. To one who has ever passed through and seen the filth and crowding of Ward IV., it is not surprising to read that the mortality among the Chinese is more than fifty per cent. greater than among the rest of the population, although they have so few children. As in many other parts of California, the mortality from consumption is large (about one seventh of the total), that in Boston for the past year having been a little more than one sixth. In San Francisco two thirds of such deaths were of persons born out of the United States. To explain the low death-rate from cholera infantum (one fifth as great as in Boston) one can think of no conditions except those of climate which are not more or less common to all cities. There were three hundred and eighty-seven deaths during the year from scarlet fever, in an estimated population of two hundred thousand; the suicides numbered three to each ten thousand inhabitants, while in England, under the present system of non-restraint, the ratio was only two thirds greater among the insane alone.

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[1] Edinburgh Medical Journal, November, 1874.

[2] *Report of the Health Officer of the City and County of San Francisco, for the Fiscal Ye ending June 30, 1874.*

ORTHOPÆDIA.[1]

THIS somewhat novel title is given to a book which treats not only of those diseases which usually come under the care of the orthopædic surgeon, but also quite a variety of others; in fact, every possible kind of deformity which is capable of relief by mechanical treatment, from in-growing toe-nail to procidentia uteri. We find also a long chapter on electricity as a therapeutic agent, and one on tonics and their effect upon the system. The book is liberally illustrated by wood-cuts, some of which portray contrivances of a novel character, while many are fashioned after old, familiar models.

The author is physician and surgeon in charge of the Hospital of the New York Society for the Relief of the Ruptured and Crippled, and has evidently had a large experience in the treatment of the diseases described in his book. A considerable amount of mechanical ingenuity is shown, and also discretion in regard to the relative value of the mechanical and operative treatment of deformities.

The writer seems to us to have attempted to cover too wide a field, and thereby to have done injustice to the separate departments of his work. In some of these we find little that can be considered an addition to our knowledge of the subject, while some are largely made up of quotations from various well-known writers. This latter is, we think, a growing fault with American authors, and shows a disposition to evade the more tedious part of book-writing by transplanting *en bloc* into the text extensive quotations from the writings of other men.

There is much need of a manual of orthopædic surgery suited to the wants of the general practitioner, and one which at the same time would be valuable to the specialist. To meet these indications in a book of this size it would be necessary to omit many subjects which are more fully and satisfactorily treated in other works, and to add extensively to others which belong properly in a treatise of this kind.

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[1] *Orthopædia; or, A Practical Treatise on the Aberrations of the Human Form.* By JAMES KNIGHT, M. D. New York: G. P. Putnam's Sons. 1874.

We have, however, found a number of useful hints which we do not remember to have seen given elsewhere.

THE SEWERAGE COMMISSION.

UNDER date of December 17, 1874, the Board of Health of Boston sent its fourth remonstrance to the City Council against the existing defects in the sewerage of the city. This communication, to which we have already referred at length, was presented to the last Board of Aldermen at one of its closing meetings (December 28, 1874), and was referred at once, without discussion, to the committee on sewers.

In his inaugural address to the new council, the mayor indorsed the action of the Board of Health, and at length (February 23, 1875) Alderman Power, as a representative of the committee on sewers, submitted an order, by which the mayor was authorized to appoint a commission, consisting of three civil engineers of experience, to examine and report as to the present sewerage of the city; the discharge of sewage into Charles River, Stony Brook, South Bay, and Dorchester Bay; the necessity of any high-water basin, on the site of the present full basin, for flushing purposes; the expediency of relieving the sewers at the South End by pumping; and finally to submit a plan for the outlets and main line of sewers for the future wants of the city. Realizing the possible economical advantage of combining in one scheme a new system of sewerage and the much-needed park, the order further authorized the commission to report whether it was expedient, in connection with the proposed works, to provide for any water basins or marginal drive-ways as ornamental and sanitary features of the city.

The order, as offered by Alderman Power, was unanimously passed. At a subsequent meeting (March 1) the order was so modified, on motion of Alderman Stebbins, as to allow the mayor, if he chose, to appoint some competent person skilled in the subject of sanitary science, in place of one of the civil engineers. The order, as modified, further instructed the commission to report an approximate estimate of the expense of any plan or plans for an improved sewerage which the commission should decide to recommend. A week later (March 8) Alderman Power endeavored to have the modification of the order, as adopted at the last meeting, so rescinded as not to allow the mayor to appoint, if he chose, a physician on the commission, since, as Alderman Power said, all physicians who knew anything about sanitary matters believed in the great advantage to be derived from a park, and as he did not believe in it he did not want to have the subject of a park mixed up with the sewerage question. The attempt, however, to re-modify the order failed (only three aldermen favoring the proposed change), and accordingly the mayor at once appointed as the commission two gentlemen whose previous works are alone a sufficient guarantee of their fitness for the position, and Dr. C. F. Folsom, who has recently been chosen to fill the place, as Secretary of the State Board of Health, left vacant by the death of Dr. George Derby.

The first and most important step has therefore at length been taken towards securing a proper system of sewerage, and the Board of Health are to be congratulated that their oft-repeated request has been at last granted, and that the warnings which they gave have been heeded.

ON THE TREATMENT OF THE DIARRHŒA OF TYPHOID FEVER.

A PAPER on this subject is published by George Johnson, M. D., F. R. S., in the *Practitioner* for January, 1875. Diarrhœa being one of the most frequent symptoms of the disease, as well as one of the most troublesome, its treatment forms a very important part of the management of typhoid fever. For a number of years the practice of attempts to arrest the frequent discharges by repeated doses of opiates and astringents was adopted, but in many cases the diarrhœa continued, and meanwhile the intestines were distended with gas, and the abdomen became tumid and tympanitic. Then the patients were tortured by the application of turpentine stupes to remove the tympanites.

Of late Dr. Johnson has changed his practice, having gradually arrived at the conclusion that in the treatment of typhoid fever careful nursing and feeding are of primary importance, while, as a rule, no medicines of any kind are required, and when not required they are often worse than useless. As a rule, the fever patient at King's College Hospital has the "yellow mixture," which is simply colored water, and except an occasional dose of chloral to procure sleep, and a tonic during convalescence, Dr. Johnson gives no active medicines of any kind. He feeds his patients mainly with milk, with the addition of beef-tea and two raw eggs in the twenty-four hours, and he gives wine or brandy, *pro re natâ*. For a time he adopted the method which has been strongly recommended, of giving repeated doses of diluted mineral acids, but he abandoned the practice, becoming convinced that the acids irritated the ulcerated mucous membrane, caused pain and griping, and often increased the diarrhœa.

Dr. Johnson thinks that the diarrhœa of a typhoid patient is often increased by his inability to digest the beef-tea and eggs which are sometimes too abundantly given. When we have reason to suspect that such is the case, it is well to keep the patient for a few days entirely upon milk, which contains all the elements required for the nutrition of the tissues in a form most easy of digestion.

With such a treatment as has here been recommended, Dr. Johnson is in every way satisfied. During the past year he had under his care in the hospital twenty-nine cases of fever; fifteen typhoid, and fourteen typhus. Some of the cases were severe, but all were discharged well. To only one of these patients was opium given, and that was for the relief of an irritable condition of the bowels which remained after a severe attack of typhoid.

COMPLETE OUTWARD DISLOCATION OF THE ELBOW WITHOUT FRACTURE.

A case of this very rare accident has recently fallen to the care of Dr. Hatry, of Lyons, who makes it the text of a paper on the subject, which is published in *Le Lyon Médical.* Dr. Hatry states that complete dislocations of the elbow outward are very rare. Excepting two cases published by Nélaton and Dr. Dénucé, those described in various surgical works are not accurately nor minutely reported. They seem for the most part to answer to backward and outward dislocations of the fore-arm, because usually the sigmoid cavity of the ulna still embraces, to some extent, the condyle of the humerus. Having met at the military hospital of Lyons with a complete outward dislocation of the elbow without fracture, and while proposing to himself to make a general study of lateral dislocations of the elbow, Dr. Hatry became aware of the existence of a very interesting monograph on this subject by Dr. Salleron, surgeon-in-chief of the military hospital at Lyons, which was published in 1855, and which he was surprised not to find mentioned in any of the contemporary works on surgery.

Dr. Hatry's case was that of an artillery-man of vigorous constitution, who was brought to the hospital March 2, 1874. But a short time before, the patient, while reaching for a harness to put on to a horse, fell with the entire weight of his body upon the pavement of the stable, and struck upon the palm of his right hand, the fore-arm being extended at the time. The patient presented himself supporting his right fore-arm with his left hand, which, when unsupported, was completely twisted from without inwards, and swung like a limb completely fractured. The posterior aspect of the forearm was external, and the anterior internal. Flexion and extension were completely abolished, and supination and pronation were only possible as passive movements. There was a considerable projection below the elbow upon the external face of the fore-arm, caused by the elevation of the muscular mass at that point by the upper extremities of the bones of the fore-arm, which had preserved their normal relations to each other. The transverse diameter of the elbow was greatly increased, measuring twenty centimetres, while that of the left elbow was thirteen centimetres. It was evident from the position of the olecranon that the right fore-arm was slightly elevated along the external border of the arm, and measurement showed a diminution of two centimetres in length when compared with the left upper arm. The tendon of the triceps projected, being tense and turned outwards; the tendon of the biceps was neither flexed nor contracted. By passing the fingers from without inwards one could with perfect ease feel under the skin the head of the radius, then the olecranon, the sigmoid cavity, and the coronoid process of the ulna; still further on the epicondyle, the trochlea, and the cavity for the olecranon, covered only by the skin, and finally, the epitrochlea, which was six centimetres distant from the olecranon. All the articular ligaments were torn, but the principal vessels were intact, and their normal pulsations could be felt throughout the limb. The nerves also appeared intact; there was not much pain, and the swelling was slight at first in spite of the severity of the accident, although later it was considerable. The patient being seated, reduction was immediately attempted. Extension and counter-extension were made with the aid of assistants, the thorax and upper part of the humerus being fixed, and manipulations were made about the elbow of flexion combined with motions to press backwards and inwards the olecranon and the upper extremity of the fore-arm. Reduction was accomplished suddenly and promptly. The fore-arm was flexed and placed in a sling. Cold compresses were applied, and absolute repose was ordered.

Notwithstanding the severity of the lesion no marked inflammatory action supervened. On the 6th the swelling had become considerable, but there was no fever, and the tumefaction was evidently due to effusion of blood. No complications followed between the 6th and the 10th, and the swelling and ecchymosis diminished. Meanwhile slight passive motion of the elbow was made, which caused but little pain. The movements of flexion and extension were gradually increased, and frictions, massage, electricity, and the carrying of weights by the patient, were made use of. By the end of April the elbow had regained its normal movements, and the patient left the hospital May 2, 1874.

Dr. Hatry remarks that this case is interesting in many ways. As has been stated, complete outward dislocation of the elbow without fracture is a very rare lesion, only two well-authenticated cases having been known previous to the one here reported.

A remarkable symptom, and one not observed in the other cases, was the extreme mobility of the fore-arm, which swung about, and had to be supported like a fractured limb.

Notable, too, were the ease of reduction, the absence of inflammatory complications, and the rapidity of cure, in spite of the gravity of the accident.

Passive motion was employed very early, — about the fifth day after the accident, — with the most satisfactory results. From the observation of this and other cases, Dr. Hatry concludes that we ought never to hesitate to adopt a similar procedure, unless hindered by some such complication as inflammation or fracture.

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MEDICAL NOTES.

— The regular meeting of the Suffolk District Medical Society will be held on Saturday evening next, at 7½ o'clock, in the lecture-room of the Boston Society of Natural History, corner of Berkeley and Boylston streets.

Second report of committee on rooms; election of delegates to the American Medical Association. The following papers and cases will be read: Dr. J. N. Borland, Fracture of the Sternum, with cases. Dr. H. I. Bowditch, Aneurism of the Aorta treated by Electrolysis. Dr. C. J. Blake, Curious Result following Cicatrix of the Membrana Tympani. Dr. J. R. Chadwick, Second Ovariotomy.

— Dr. T. O. Reynolds, of Kingston, N. H., reports to the *Clinic* the following account of a large number of tappings, with the quantity of fluid removed, a physician being the subject. "Chancing to come into possession of a 'relic of antiquity' in the form of a physician's account-book, with count of an extensive medical and surgical practice extending over the middle and latter part of the last (eighteenth) century, I found on the fly-leaf a memorandum kept by the son, also a physician, of the 'tappings' of his father, with the dates and quantities of fluid drawn off at each operation.

"It appears that the old gentleman, Dr. Benj. Rowe, of Kensington, N. H., who during his day enjoyed an enviable reputation as a surgeon, suffered in his last years from ascites. On the 28th of March, 1786, he was tapped for the first time, having twenty-four and one half pounds of water removed. From this date to March 16, 1790, he was subjected to the same operation sixty-seven times, and the total amount of serum removed was two thousand three hundred and sixty-eight and one-half pounds — nearly eight barrels — two hundred and thirty-six gallons. The quantity at each operation varied from twenty-two to forty-five pounds.

"A noticeable feature of the accounts contained in the book is the fees charged, *e. g.*, 'Attending Mrs. —— in labor, and journey, 5s. 6d.' 'To setting arm, 4s.' 'To amputat. foot and journey, 6s.,' etc. A neighbor suggests that opium must have been cheap in those days."

— The disturbances which have occurred in the medical school of St. Petersburg, and particularly at the lectures of one of the faculty, M. Cyon, were not originated, it seems, by the students, but by certain members of the faculty who were supported by the press. The faculty has for several years been divided into two parties strongly opposed to one another; one of these factions favors reform, and the other is composed of conservatives. The minister of war has, curiously enough, come to the aid of the former, and has on the recommendation of M. Kozloff appointed seven new professors, of high scientific attainments, and among them M. Cyon. The object of these appointments was to introduce certain important reforms in the method of instruction, and particularly in the examinations. The conservative party appealed to the press opposed to the minister of war to influence the students against these reforms, and their repeated attacks on the projects published in the journals gave rise to the disturbances alluded to. The minister of war, accordingly, without calling the students to account for their conduct, dissolved the academical council, and has formed a new commission to take charge of the school. In the mean time the emperor appointed a commission of six of his ministers to reorganize the whole system of instruction in the higher schools, and it is very probable that these institutions will be deprived entirely of their independent organization. Other cities of Europe besides St. Petersburg and Paris have been the scene of disturbances of this character. Rome has not been free from them, and they have lately also occurred in Spain. The professor of physiology in the medical school of Barcelona having been hooted at and insulted by a large class at one of his lectures, drew a revolver and threatened to fire upon the students. A panic ensued, and the lecture-room was rapidly emptied. A strong force of police was required, however, to enable the pugnacious professor to beat a retreat from the building in safety.

SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

The following operations were performed on Friday, March 12, 1875:—

1. Excision of the ankle-joint. 2. Tenotomy for talipes varus (double). 3. Cystic tumors of the scalp. 4. Plastic operation for ectropion. 5. Cancer of face. 6. Tattooing the cornea.

1. *Excision of Ankle-Joint.* — The patient is twenty years of age. Two months ago, when at sea, he fell from aloft upon the deck, and thence into the hold of the vessel, striking upon the chain-cable. The whole distance was between seventy and eighty feet. The patient states that both legs were broken just above the ankle; that splints made of orange boxes were applied and kept upon the right leg eight or nine days, but not as long upon the left. The former has united well, without deformity, and promises to be a useful limb.

The left tibia and fibula were broken one and a half inches from the lower ends. The union of the tibial fragments was very firm; that of the fibula not as strong. The lower fragments were extensively comminuted, and with the foot were carried backwards, forming an angle of forty-five degrees with the upper fragments. The malleoli preserved their relative positions to the astragalus, and there was fair motion in the ankle-joint. The foot could be flexed to a right angle with the leg and placed upon the ground, but no weight could be borne upon it. A sinus had formed over the outer malleolus, leading down to carious bone.

While otherwise healthy, this young man was prevented from earning his living by the deformity; and as there was a sinus leading into carious bone, his prospects of improvement were poor. Moreover, the union of the fragments was so firm, and the line of fracture so near the joint, that it would have been impossible to re-fracture the bones, and in that way correct the deformity. Taking into consideration these facts, and also the fact that the foot was entirely useless, and would probably remain so, Dr. Cheever decided, after a consultation, to perform excision of the tibio-tarsal articulation.

A vertical incision, four inches long, was made upon each malleolus, and the seat of the fracture carefully explored. A large piece of the lower fragment of the tibia was displaced backwards upon the tendo Achillis. Another part of this fragment was split off from the outside, and was attached to the lower fragment of the fibula, which was bent sharply backward at an obtuse angle with the shaft of the bone. All of these fragments were firmly glued together. With the knife and periosteum-scraper, the soft tissues were cleaned from the lower fragments, and the ligaments of the ankle-joint divided. The ends of the tibia and fibula, including the malleoli and articular surfaces, were then sawn off just below the line of fracture, and a thin slice removed from the articular surface of the astragalus. All of this being done through the original lateral incisions, none of the principal vessels were wounded. The bones were divided with a key-hole saw, copied from the plate of the saw used by Mr. Adams, of London, in his subcutaneous division of the neck of the femur. Hæmorrhage was prevented by Esmarch's method; and when the tubing was removed excellent circulation was restored in the foot, both the anterior and the posterior tibial arteries pulsating well. No tendons or nerves were divided in the operation. No vessels required ligature. The wound was gently plugged with two compresses filled with minutely broken sponges, bandaged, and placed in a fracture-box.

2. *Tenotomy.* — A boy, ten months old, had the following deformities: The ring and little fingers of both hands were very small and rudimentary, the phalanges being shortened, the last one to a mere tubercle. The first and last toes of the left foot were entirely gone, and the others were small and webbed. The fourth and fifth toes of the right foot were very rudimentary, the last one being only a nodule. Talipes equino-varus existed in both feet, and was congenital. The right foot was not so deformed as to prevent its being drawn into the natural shape before the operation. But the left could not be so returned with any reasonable manipulations.

In the left foot Dr. Cheever divided the plantar fascia, the tendons of the tibialis anticus, posticus, and flexor longus digitorum, and the tendo Achillis. In the right foot the tendon of the tibialis posticus and the tendo Achillis were cut. After the operation both feet could be drawn into the normal position. The apparatus, which had been fitted to the feet before the operation, will be applied in three or four days.

3. *Sebaceous Cysts of Scalp.* — The patient was an old man, who had had these growths for thirty years. The principal tumor was three inches in diameter, and was situated just above and behind the right ear. It had lately become very painful. Dr. Thorndike removed it through an elliptical incision. The contents were the usual thick sebaceous substance. Two or three smaller ones were removed by splitting them open, and pulling out the sac with forceps. The patient refused to take ether.

4. *Plastic Operation for Ectropion.* — The left upper eyelid of a middle-aged man was everted and drawn upward by a cicatrix upon the forehead, the result of a severe injury to the head several months ago. Dr. Thorndike removed the cicatricial tissue, loosened up the lid, and slid down a long, curved flap with a wide base from the forehead. The result promises to be good, as all tension upon the lid was removed, and healthy skin was substituted for contractile cicatricial tissue.

5. *Cancer of Face.* — An old man had an ulcerating epithelial cancer in the right parotid region, of eight months' duration. It was three inches in diameter, encroached upon the external auditory meatus, and involved nearly half of the lobe of the ear. The tumor was circumscribed, and somewhat movable. No glands were enlarged. As the pain was severe, the discharge offensive, and the growth apparently not very deep, Dr. Cheever advised its removal, and performed the operation. The tumor was entirely removed by free dissection, without wounding any vessel of importance. Some of the larger branches of the facial nerve were exposed, but not divided. The parotid gland was healthy. The wound was large, and must necessarily heal in a great measure by granulation.

GEO. W. GAY, M. D.

LETTER FROM NEW YORK.

[FROM OUR OWN CORRESPONDENT.]

MESSRS. EDITORS, — For some time the homœopathic practitioners here have been trying to get control of one of the hospitals under the charge of the Commissioners of Charity and Correction. On the removal of the old board in December last, and the appointment of the new, the homœopaths again renewed their request, using all the personal and political influence they could bring to bear upon the commissioners, one of whom is a firm believer in homœopathic doctrines. By a resolution recently passed by the board the building now used for a small-pox hospital, having accommodation for about one hundred patients, has been given to them to be used as a general hospital, provided the Board of Health are willing to remove their patients to another locality. I have heard that, some years ago, Dr. A. Clark made them an offer to place one of the wards in Bellevue Hospital under their control; the offer was declined.

Last June the obstetrical wards in Bellevue Hospital were closed on account of the great mortality from puerperal disease; in May last there were twenty-eight deaths in fifty-three confinements, and the waiting women were transferred to Charity Hospital, and placed in pavilions.

These cases, although they came directly from the infected wards of Bellevue, did not develop puerperal disease. All the new patients were placed in wards on the top floor of the hospital. During the year 1874 there were four hundred and thirty-one women confined at Charity Hospital; of these, fourteen developed puerperal disease, and eleven died — a mortality of one in thirty-nine and two elevenths cases delivered.

Dr. C. S. Bull read quite an original paper before the Neurological Society at its last meeting, On the Connection between Certain Lesions of the Optic Nerve and some Affections of the Spinal Cord, with special reference to Pott's Disease. There is found when the cord is implicated above the eleventh dorsal vertebra, and occasionally below, in Pott's disease, certain abnormal conditions of the pupil and circulation in the optic disk, which have heretofore escaped the investigation of those interested in this class of disease; namely, a moderately dilated and sluggish pupil, and a passive hyperæmia of the optic disk; the small nutrient vessels are enlarged, and perhaps increased in number, giving to the disk a red appearance. There is with this an enlargement and sometimes a tortuous condition of the retinal veins. It is well known that in the majority of cases in Pott's disease when the cord is involved, it is at first simply pressed upon by the inflamed and thickened dura mater (pachymeningitis) in a mechanical manner; later it is the seat at the point of pressure of a chronic myelitis, which soon extends, according to the well-known law of Türck, downwards in the anterior, and upwards in the posterior columns of the cord. There are but three ways by which changes in the circulation of the optic disk in this disease can be brought about: first, by contiguity of tissues, the changes being propagated from the cord to the base of the brain; secondly, by changes in the cerebral circulation; and thirdly, by irritation of the vaso-motor nerves of the cord acting through the sympathetic on the vessels of the eye. In the vast majority of cases, we never find any symptom of cerebral irritation or lesion which would be the fact if either the first or the second hypothesis were true—and when we do have symptoms of brain-lesion, the ophthalmoscopic appearance would be that of a descending neuritis, or choked disk; whereas the changes in the calibre of the vessels, and the sluggish pupil, point to an irritation of the sympathetic, causing a paresis of the muscular coat of the arteries. These abnormal changes pass away as the limbs regain their power.

Quite an instructive and interesting discussion took place at the last meeting of the Academy of Medicine, on Pneumonia: its Prevailing Type, Etiology, and Treatment. Dr. Austin Flint, Sr., opened the discussion, and spoke of the differences that the disease presented in different times and places — that the disease is of much greater gravity South than North. In regard to bleeding, it had not in his experience ever arrested the disease. He was a strong advocate of the employment of opium, not only in this disease, but in *all* local inflammations; it placed the system in a better condition to tolerate the local affection. An important item in the history of pneumonia is the formation of heart-clots; measures, therefore, which have a tendency to prevent this accident are important. Ammonia has been used for this purpose. Dr. Flint said he had employed digitalis, on the idea that it increased the power of the heart's action, and thus diminished the liability to the accident. Another symptom to be treated is the condition of hyper-pyrexia. Quinine has been employed for this purpose, and is much used. Dr. Flint advocated the use of cold water in the form of douche, bath, or pack. Alcohol and alimentation hold important places among the means to be used.

Dr. W. H. Thomson advocated the use of cold to the chest, applied by means of a rubber ice-bag, kept on for from eight to ten hours, until the temperature was brought down to 100° Fahr., or even lower; the ice should be re-applied when the temperature rose. He regarded wetting the skin as a drawback, the object aimed at being simply the withdrawal of heat; the contact of water with the skin he considered to be a source of irritation, and of discomfort to the patient. He gave carbonate of ammonia in ten-grain doses every two hours, and quinine. He considered failure of the heart's action a cause of death in many cases. He gave the history of five cases treated on the above plan; one was fatal, due to œdema of the lungs. If there were much pain in the side early in the disease he would apply a few leeches.

Dr. A. L. Loomis considered that the majority of cases of pneumonia occurred in debilitated patients. He thought that idiopathic pneumonia was rare. When a man under the influence of alcohol, and in a condition of chronic alcoholism, is exposed to cold, and contracts a pneumonia, it is an alcoholic pneumonia that is developed. Again, when a man debilitated by malarial poison has pneumonia, it is a malarial pneumonia. The same may be said of other states of the system. Now all these conditions should enter largely into the question of treatment. He was not disposed to use cold to reduce the temperature, as it has a tendency to cause the pneumonia to spread, and it was only temporary in its action. He believed that quinine, given in full doses of not less than ten grains, possessed the power to lower the temperature, and that a temperature of 103° Fahr. might well be let alone.

Dr. Leaming considered that simple uncomplicated pneumonia was rare, while pleuro-pneumonia was common, and he thought this the important characteristic of the present epidemic. As to the treatment, if he saw the patient early in the disease, he would try the abortive plan by the application of heat or cold; meanwhile stimulating the skin and using heart-sedatives, etc. His own preference was, first, for the sedative action of calomel, and second, quinine. If he should not see the case early enough to attempt the abortive plan, he would deem the next best thing to be to watch the symptoms, and endeavor to carry the patient through. He advocated giving the chest rest by means of strapping with adhesive plaster; this measure relieves pain, restrains cough, prevents exposure to cold air, and allows the patient to change his position without much distress. The temperature may be kept down by quinine.

The training-school for nurses in connection with Bellevue Hospital is just about entering on its third year. It has proved a success far beyond the most sanguine anticipations of its friends, and bids fair to solve the question how we are to obtain thorough and intelligent nurses, not only for our hospitals, but in private families. They now have nine wards in Bellevue Hospital under their charge, namely, three female medical, three female surgical, and three male surgical. The improvement in the hospital since they have been in charge is apparent to any one visiting the institution, in the neat and orderly condition of the wards under their care, and the superior nursing the patients receive. The medical board is so well pleased with the new order of things that they wish the whole hospital might be made subject to it; this they are unable to do at present from want of nurses. Each of the wards mentioned is under the care of one nurse and two assistants. The expenses of the school for the past year were about $15,000.

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WEEKLY BULLETIN OF PREVALENT DISEASES.

The following is a bulletin of the diseases prevalent in Massachusetts during the week ending March 20, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

Bronchitis, pneumonia, and rheumatism are reported as prevailing in all parts of the State. Influenza has subsided very considerably in all the sections.

Among the diseases prevailing locally the following are reported: —

In Berkshire, influenza still has a hold.

In the Connecticut Valley, diphtheria and tonsillitis are quite common. Small-pox has disappeared from Holyoke.

In Worcester County, influenza, measles, and scarlatina prevail.

In the Northeastern section, measles has become much more prevalent. In Acton and Lawrence scarlatina has a local prevalence, and in the former place it is of a severe type.

In the Metropolitan section, measles continues to prevail, but it is subsiding.

Scarlatina is also diminishing; whooping-cough is increasing, but is not yet very prevalent. Coincidently with the epidemic of measles, many cases of rubeola or "German measles" have been reported. A few cases of diphtheria in Cambridge and Arlington are reported.

In the Southeastern section, a very marked subsidence of measles, scarlatina, and whooping-cough is noted. In Fall River there have been twelve cases of small-pox since March 2; all the cases are of mild type and doing well. A case of cerebro-spinal meningitis in Plympton is reported.

Except rheumatism, all the reported diseases have declined in prevalence since last week.

Scarlatina is most prevalent in Worcester County; measles in the Metropolitan section; whooping-cough in the Southeastern counties.

F. W. DRAPER, M. D., Registrar.

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COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MARCH 13, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	619	31
Philadelphia	775,000	366	24
Boston	350,000	162	24
Providence	100,000	42	22
Worcester	50,000	12	12
Lowell	50,000	16	17
Cambridge	44,000	29	34
Fall River	34,200	10	15
Lawrence	33,000	15	22
Springfield	33,000	9	14
Lynn	28,000	4	8
Salem	26,000	12	24

BOOKS AND PAMPHLETS RECEIVED.

Scleritis Syphilitica: Its Pathology, Course, and Treatment. By Fred. R. Sturg[illegible], M. D. New York: G. P. Putnam's Sons. 1875.

Eighth Annual Report of the Board of Trustees and Officers of the Minnesota Hospital for the Insane, for the Year ending November, 1874. St. Paul. 1875.

Reports of the Trustees and Superintendent of the Butler Hospital for the Insane. Providence. 1875.

A Retrospect of the Struggles and Triumph of Ovariotomy in Philadelphia. The Annual Address before the Philadelphia County Medical Society. By Washington L. Atlee, M. D. 1875.

Syphilitic Lesions of the Osseous System in Infants and Young Children. By R. W. Taylor, M. D. New York: William Wood & Co. 1875.

Lectures on Diseases of the Respiratory Organs, Heart, and Kidneys. By Alfred L. Loomis, M. D. New York: William Wood & Co. 1875.

The Coming Medical Man. By D. B. St. John Roosa, M. D. New York: D. Appleton & Co. 1875.

First Annual Report of the City Physician of Knoxville, East Tennessee, for 1874.

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THE BOSTON
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PUBLIC PARKS.

At a recent hearing before a committee of the Massachusetts Legislature on Drainage and Sewerage, to whom was referred the petition of James L. Little and others that the commonwealth would take the necessary steps for the laying out of public parks in and around Boston, Dr. Edward H. Clarke, a member of the late Commission on Public Parks, was called by the petitioners, and addressed the committee. The following is an abstract of his remarks: —

Mr. Chairman, and Gentlemen of the Committee: —

In undertaking to present the question of public parks in Boston to you, I am embarrassed by the magnitude and importance of the subject. It is difficult to present it to you appropriately without occupying too much of your time, and it is equally difficult to be concise without omitting many important considerations. Perhaps the few hints I shall be able to offer may at least arouse your attention to the subject, and I am sure that if you can be induced to investigate it you will soon be convinced of the necessity of prompt action with regard to it.

Permit me first to call your attention to the fact that the tendency of modern civilization everywhere is to the aggregation of population in large cities. This tendency is shown by the fact that during the past half-century the large cities of Europe have increased in population out of proportion to the agricultural districts. The same is true here. The country is drawn upon to fill the villages, the villages to fill the cities. While with this aggregation of population in large centres there are to be found in them larger opportunities for education and greater material prosperity than in small towns, there is also to be found in them an enormous increase of disease and crime.

If an increase of disease and crime is a necessary attendant upon the growth of cities and the increase of population in them, our civilization has a sad future before it. I do not believe this result is necessary; and as we shall see presently, the question of public parks has much to do with this matter; their establishment is connected with the sanitary and moral and educational development of our cities.

When I came to Boston thirty years ago, no one anticipated such an increase of population here as has taken place; nor did any one anticipate the increase of crime and disease that we have witnessed. Should the latter increase in the future as they have increased in the past, t commonwealth will soon have to deal with a problem that it does n now dream of.

De Tocqueville says that the greatest danger to republics lies, not their form of government, but in the development of their large citi If this be so, and if it can be shown that the laying out of parks Boston will not only add to the beauty of the city but improve its sa tary, and moral, and consequently its political condition, then is th construction vital to the life of the city and of the commonwealth.

Let us look for a moment at the sanitary aspects of the questi There is no city better able from its natural advantages to provide citizens with good hygienic conditions than Boston; and yet to-d Boston stands among the unhealthy cities of the United States, as t reports of the State and city boards of health and of the city reg trar testify.

In this connection let me lay before you a petition signed by a lar number of the prominent physicians of Boston, members of the Mas chusetts Medical Society, in which the alarming death-rate of Boston referred to. The petition reads thus: —

"We, the undersigned, members of the Massachusetts Medi Society, residents of Boston, in view of the alarming death-rate of t city and the danger of its increase as the unoccupied territory becom inhabited, respectfully represent to your honorable body that in o opinion a liberal and comprehensive plan of public parks would large conduce to the diminution of the death-rate and consequent increase the health of the city; and we therefore respectfully and urgently pr your honorable body to make provision for such plan of public parks will prove a means of hygienic and sanitary relief."

This petition is signed by Dr. Jacob Bigelow and more than eigh other physicians of Boston — men whose lives are spent in the observ tion of disease, and who are familiar with the sanitary conditions, go and bad, of Boston. I do not say that Boston is the most unhealt city in the country, but I do say that it presents a large and needl amount of preventable disease.

Some years ago I undertook to compare the death-rates in cert sections of the city with each other. For this purpose three sectio were selected, each containing about three or four thousand inhabitan One included Fort Hill and its neighborhood; the second, a district b tween Pleasant Street and Dover Street; and the third, Beacon H from the State House to Charles River. I found that in the Fort H district the average mortality for a period of ten years was one in seve teen of the inhabitants, the highest rate that I could find any record either in old England or in New England; in the second district the r was one in forty-four, or about the average rate in most large citi in the Beacon Hill district the rate was one in eighty-four of the inhabitants: so that different sections of Boston presented, at the time these observations were made, rates of mortality varying from one in seventeen to one in eighty-four of its population. From that time to this, the general death-rate of Boston has been increasing. I do not know that any one locality is worse than the worst of those just mentioned, but there are many as bad. Some of the reasons for this increase have been laid before you by the committee on sewerage. Boston is admirably situated for good drainage, and yet is one of the worst drained cities of this country; witness the effluvia which arise from the foot of Beacon Hill, from the district of Miller's River, from the banks of Charles River, from various regions in and near the Back Bay, and from other parts of the city, spreading far and wide the germs of disease. The problems of sewerage and drainage need not and should not be confounded with the question of public parks; yet it is not to be forgotten that financially one can be made to materially aid the other. There will be economy in harmonizing them.

If you will look at the territory referred to in the Report of the Commissioners on Public Parks, namely, one that is bounded by a line drawn through Arlington Street to Albany Street, and thence through Albany Street and around Parker's Hill to the station in Longwood of the Boston and Albany Railroad, and from the latter point to Arlington Street again, you will take in a territory of about seventeen hundred acres, and will observe that it forms a great natural cess-pool, of which the only outlet is toward Charles River, and that this outlet is imperfect. The present grade adopted for filling this large area does not admit of appropriate surface drainage, so that the city is to come in possession of an immense water-shed, whose lowest point is in the neighborhood of Chickering's factory.

Imagine this district to be built upon, not as the closest built parts of Boston are, but in a manner suited to ordinary dwelling and business purposes, and to contain, as such parts do, about ninety-three and a half persons to the acre. This district will then contain a population of one hundred and fifty-four thousand persons. If we suppose that the sewers of this region are properly made, there will still be imperfect surface drainage, which means refuse of every kind penetrating the soil and making its way to the lowest part. There will be a region like the Fort Hill district, where the refuse floated about the sidewalks and alley-ways, instead of being drained away. One result of this condition will be that this section of Boston will be occupied only by the poorest class of dwellings, and, indeed, will not be fit even for them. Whether you build your houses upon land that has existed for a thousand years or upon that which has just been made, if the surface drainage is not sufficient, there will be in either case unhealthy sanitary conditions. It is in this connection that the questions of public parks and of sewerage deserve to be considered togeth Look over the territory of seventeen hundred acres just mention Suppose the city permits the present process of filling to go on till t whole area is filled; we shall have in time the condition of the Chur Street district over again, and the people will compel the governme to raise the land at an enormous cost. It has been estimated that raise it now, before it is built upon, will cost in the neighborhood of thr millions of dollars. For a less sum of money a sufficient portion of tl area could be reserved and laid out as a park, in such a way as to pı mote and benefit the drainage of the rest. This would begin a series public parks, and begin it in such a manner as to increase the health a wealth of the city. A great sanitary danger lies before the city, and t city or the commonwealth should avert it. Let the commonwealth s to it that the matter is put into the hands of a competent board of coı missioners with full powers to act in the premises.

An illustration is often better than an elaborate argument. Let n give you an illustration of the effects of the effluvia that perfume Bc ton in the summer. I was called one summer night to a patient li ing in the neighborhood of the Public Garden, and found nearly evei member of the family sick and vomiting. Poisoning was suspected, bı none could be proved. The night was hot, and the windows of tl house were open, through which an exceedingly offensive odor pen trated the dwelling. It was evident that the sickness was due to th foul air. I ordered the windows of the house to be closed, with the r sult of seeing my patients soon relieved. At another time a family c Beacon Hill were similarly affected, probably by the emanations from tl Charles River drains. Similar phenomena have been observed in o hotels, produced by similar causes, especially in the case of persons cor ing in from the country, who are not acclimated to our summer atmo phere. Young children are especially sensitive to these condition There are some districts in Boston where children die in large numbe from diseases which under other circumstances would not be fatal. Th a city, and especially the city of Boston, might be made as healthy as tl country there can be no doubt, and that it should be made so is a matt of great importance, not only to the present inhabitants of Boston, b to those of the whole commonwealth and of New England, who, for v rious reasons, are constantly moving into the city.

Now how do these considerations bear upon the question of publ parks? Nothing is so economical as health, nothing so costly as sic ness; we acknowledge this in regard to ourselves and our families, bı we do not acknowledge it in regard to our cities. Whatever leads sickness is extravagance. Whatever prevents it is economy. I reca a laborer, healthy and active, who hired a house in the outskirts of th city, and in a poorly drained locality, for fifty dollars a year less than h could have hired one a quarter of a mile farther out but much better placed. One of his sons, who was a help to him in his work, fell sick in consequence of the bad hygienic conditions of his house, and died, after a lingering illness, of consumption. The laborer saved fifty dollars a year on his house, but made himself bankrupt by his vain efforts to save the life of his child.

The ventilation of a city is as important to the health of its inhabitants as that of a house is to the health of its inmates. Large breathing spaces are as essential to a city as are good-sized halls and open fire-places to a dwelling. In London this is recognized, and as the city grows, year by year, lands are reserved for new public parks. Here, we fill up our land just high enough above the water to keep wet out, and reserve no large air spaces. We pay little attention to the sanitary condition of the city, and so invite bad health, disease, and crime to live with us.

Parks, which are so necessary to all, should be accessible to all. They should be placed so as to prevent too close crowding of buildings and streets. The larger portion of the population of Boston is obliged to stay in town during the hot summer months. Numbers are compelled not only to remain in the city the whole year but also are forced by circumstances to occupy the undrained parts of the city, and the poorest tenements. The city can afford a partial relief to all who thus spend the whole year in town, by providing for them parks, which shall give to all a chance for fresh air. It is indispensable that this should be done.

In the hot months of summer you will find, if you choose to look for them, numbers, not of tramps and outcasts only, but of decent and orderly people, who spend the whole or part of the night on Boston Common, preferring it to their foul streets and close houses. If the city were properly laid out, so that good air could reach, as it should, every house, of the poor as well as of the rich, and so that all of its inhabitants could easily get a ramble in some open space, Boston Common would not be made a common bed-chamber.

I have said enough to show you that the sanitary condition of Boston is far from satisfactory, and that one remedy is to be found in the laying out of public parks and in the proper sanitary engineering of the city. Let us now look at the moral aspect of the question.

A friend of mine told me, not long ago, that a circus which had previously exhibited its performances in the city of his residence, petitioned the city fathers for leave to exhibit again. A remonstrance against it was sent to the authorities, signed by various clergymen and church-members, and also by sundry bar-keepers and liquor-sellers. Amazed at the curious juxtaposition of clergymen and rum-dealers on the same paper, my friend took pains to investigate the matter. He found by inquiry of the rum-sellers and saloon-keepers that they objected to the coming of the circus because at its previous visit their sale of liquor during its stay had been materially less than usual. The more rational amusement had replaced the more harmful one. Herein is indicated another and most important reason for public parks. If our people could get, after their day's work is over, fresh air and relaxation in parks such as are to be seen in the cities of Europe, we should have less drunkenness and less crime, as well as less disease. There is an undoubted connection between the health and the morals of the community. Holy Writ joins clean hands to a pure heart. Foul air, filthy and unventilated streets, and uncleanness in every form breed vice and crime as well as disease and deformity. When the brain is poisoned by impure air, and all the nerves ache, and the head is oppressed, and blue devils and low spirits fill and control the system, the sufferers, if denied access to fresh air and healthy relaxation in it, will seek relief in saloons and dance halls, and drown their sufferings and ennui in alcohol, or stupefy them by opium and tobacco. We spend enormous sums of money, every year, on hospitals, almshouses, and prisons, forgetting the economy of prevention. A city well provided with opportunities for innocent recreation, especially recreation in the open air of large parks, accessible to all its denizens, will find its prisons and hospitals less crowded than if its streets are filthy and its territory is undrained and unprovided with large and frequent open spaces. If you believe that health and virtue are cheap at any cost, and that disease and vice are the most expensive as well as the worst burdens that can be laid upon Boston, you will see to it, as one means of obtaining the good and averting the evil referred to, that public parks shall be established in and around our city.

Let me ask your attention, in conclusion, for a single moment to the question of education, which is of great importance in this connection. There can be no doubt that the development of the mind is intimately connected with the development of the body. Disease of the body impairs the health of the mind, and if our children are to grow up with well developed minds they must have well-developed bodies; and to obtain the latter they must have a sufficient chance for free exercise and fresh air. Schools and parks are complemental institutions.

Gentlemen, this whole question should be put into the hands of an intelligent commission with power to decide and act, and then Boston will be in the future, as it was formerly, one of the healthiest and most intellectual cities of the continent.

ON THE TREATMENT OF OPHTHALMIA OF NEW-BORN CHILDREN BY NITRATE OF SILVER.

BY HASKET DERBY, M. D.

IN the JOURNAL of February 18th, I took exception to Dr. Williams's wholesale condemnation of nitrate of silver in the treatment of the ophthalmia of new-born children, and stated that he stood comparatively alone among ophthalmic surgeons in discarding its use.

In the number of March 11th, Dr. Williams defends his suggestions, and again expresses his convictions on this subject. Referring to the authors I quoted from in defense of the practice, he essays — from their own testimony — to prove that the cauterization advocated by them is dangerous, cruel, and needless. Moreover, he cites a number of extracts from the works of other authors, with the object of showing what can be done without the use of caustic agents, of which it is reasonable to infer these authors disapprove.

Agreeing, as I do, most entirely with Dr. Williams that the profession at large, into whose hands these cases generally fall, has an interest in knowing how this serious affection may be treated most quickly, safely, and pleasantly; and feeling, too, that other writers on this subject have as good a right to the accurate presentation of their views as either he or I, I venture to trespass once more on the patience of the readers of the JOURNAL, and invite them to judge as to the correctness with which the sense of these authors has been interpreted.

The first witness as to the cruelty and danger of cauterization is Wecker, who is understood to say, "It is true the cauterizations are very painful for the infants." Let us turn to the original and read this sentence with its context.[1]

"Enumerate we now briefly the objections that have been urged against cauterizations, of the virtue and efficacy of which in purulent conjunctivitis we are thoroughly convinced. To begin with, it has been pretended that their successful application requires considerable dexterity on the part of the surgeon; this objection is, however, by no means susceptible of proof, for it needs but a small number of applications of caustic to insure the proper way of managing it.

"It has, moreover, been alleged that infants resist the application of caustic in all sorts of ways, by crying and struggling, and that this may give rise to a serious congestion of the diseased eye. It is true that the cauterizations are very painful for the infants, but they generally soon calm down, and we are of opinion that cauterizations repeated once in twenty-four hours distress them less than caustic instillations applied much more frequently."

Furthermore, Dr. Williams tells us that Wecker insists on the application of the caustic at exactly the right moment, and especially b fore the tumefaction of the conjunctiva, succeeding the last touchin has reappeared. "It is only by cauterizations applied precisely befo this period of relapse," he is quoted as saying, "that we can arrive a favorable result; and it is difficult to decide whether this has occurre as it is only by a very attentive observation that it can be perceive The increase of secretion, of which the patient can best inform us, giv us the best indication as to the time when we should repeat the caute ization." This passage is used for the purpose of ridiculing such trea ment when applied to babies, their sensations, it is urged, being hard to arrive at than those of adults, hence an even increased difficulty selecting the proper moment.

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[1] Wecker, Études ophthalmologiques, tome i., page 51.

It might be inferred that Wecker was here writing particularly c the ophthalmia of new-born children. Not at all; that has its allotte department farther on. He is talking about purulent conjunctivitis general, inferentially that of people who are able to give some accou of themselves and their symptoms. What he actually says is as follow

At the bottom of page 48: "It is only by cauterizations applied precisely before this period of reinvasion that we can arrive at a favorabl result without in any way affecting the conjunctival tissue."

At the bottom of page 49: "As to the moment when the new cauterization should take place, the lessened swelling of the conjunctiv gives an insufficient indication; on the one hand, it is tolerably difficul to ascertain the diminution in swelling, a very attentive observatio being requisite for its perception; on the other, the majority of cases d not fall sufficiently under our immediate observation to enable us t watch them. Our best plan is to steadfastly regard the increase of th ocular secretion and congestion which takes place after the second period of remission."

At the middle of page 50: "We should renew the cauterizatio . . . . as soon as the secretion has commenced to again increase. It i of this increase that the patient is best capable of giving us accurate information."

Thus is the quotation made up. Is it unreasonable to require that patient whose time is mainly spent away from our observation sha warn us of the increase of discharge? Is it too much to ask from nurse that she shall give notice when the baby's eye, which she h been constantly cleansing, begins to matter a little more? Are the too "nice points" for the general practitioner? Those who are d posed to consult Wecker's text more carefully will find it so precise, t indications for cauterization so clearly stated, that he who runs m read. Shall then a remedy be discarded because its use requires t exercise of judgment? Is the fact that another drug can be lavis applied in any eye, at any time, and by any person, to be used as argument for giving it our preference?

So much for Wecker. Mr. Soelberg Wells is next quoted by Dr. Williams, and is represented as ordering a collyrium of alum and zinc for those out-patients who can only be seen two or three times a week. It is thus inferred that this remedy is considered by him "all-sufficient to insure good results, for of course he would not allow eyes to be endangered for the want of any essential means."

Mr. Wells is dealing here with patients whom he cannot see as frequently as he deems desirable, and for whom he therefore does the best he can. Of the "all-sufficiency" of the remedies he is thus obliged to employ, he does not say a word. But he does state, "If the patient is in the hospital, or can be frequently seen by the surgeon, *I greatly prefer* to apply the nitrate of silver in substance. . . . Its strength should be diluted by mixing it with one half or two thirds nitrate of potash."[1] The italics are my own. In speaking of diphtheritic conjunctivitis he deprecates the "injudicious or excessive use" of the nitrate, as Dr. Williams justly states. Who does not?

Next comes a quotation from Stellwag, who, in a note, condemns the *abortive* method of treating this disease with strong solutions of nitrate of silver, or the mitigated stick, during the increase and height of the inflammation. Here there is surely some misapprehension on Dr. Williams's part. Of aborting the disease, of the application of such remedies during its incipient stage, I have never raised the question. But let me cite Stellwag as a witness in my own behalf. In the coarser text he says, "When the acme is past . . . . we seek for an astringent action and the disintegration of the secretion which is endangering the cornea. For the purpose of lessening chemical decomposition of the morbid secretion, instillations of weak solutions of nitrate of silver, one or two grains to the ounce, or penciling the conjunctiva with solutions of three to five grains to the ounce of distilled water, is to be recommended."[2]

We pass now to Dr. Williams's own authorities. And first is Saunders, who advises very moderate astringents as the best, and who himself used only a weak solution of alum. This worthy flourished in the early part of the present century. His treatment would to-day be considered singular in more respects than one. Thus, in this disease, we find him advising the excision of a considerable portion of the morbid conjunctiva, when the lids are greatly everted.[3] In iritis he bleeds an adult to the extent of from sixteen to thirty-two ounces in twenty-four hours.[4] In strumous ophthalmia he makes a local application of nitrate of silver, two grains to the ounce, and may even use general or topi bleeding.[1] He is hardly an authority in therapeutics.

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[1] Soelberg Wells, Treatise on Diseases of the Eye, page 33. Mr. Wells is treating here the subject of purulent ophthalmia in general. Farther on he discusses the ophthalmia of new-born children in substantially the same strain.

[2] Stellwag von Carion, Diseases of the Eye (American translation), page 319.

[3] Saunders, Treatise on some Practical Points relating to Diseases of the Eye, London, 1811, page 18.

[4] Idem, page 25.

I will enlarge the extract from Sir William Lawrence by adding a italicizing the words that, in the original, directly follow Dr. William quotation: "Even the most violent form is easily manageable, and w do well when properly treated. We generally use a simple solution alum in the proportion of two grains, which may be increased to grains, to the ounce of water. Such was the treatment at the Lond Ophthalmic Infirmary, and out of many hundred cases I hardly rec lect one where the eye suffered in any respect. *When there is occas to change the lotion, from the eye being accustomed to the stimulus of alum, we may advantageously resort to the nitrate of silver*," etc.[2]

Mr. Druitt, the author of the Surgeon's Vade Mecum, must exp rience considerable bewilderment on finding himself arrayed among a thorities on ophthalmic surgery. Let us, however, quote him enti and supply, in italics, the words not to be found in Dr. Williams's qu tation: "This disease (the purulent ophthalmia of children), if su mitted to early treatment, is easily cured by great attention to clean ness, and by incessantly washing away the discharge with some mi astringent lotion. *Almost any weak collyria will answer; . . . . and large drop of a solution of one grain of the nitrate of silver to an oun of distilled water may likewise be put between the lids once a day with camel's-hair pencil.* The practice pursued at the Central London Op thalmic Hospital is," etc.[3]

Finally, as to the testimony of Mr. Wells's colleagues at Moorfield It is entirely true that Mr. Dixon once recommended the employmen in this disease, of a weak astringent lotion alone. His views on oth subjects were also peculiar; witness his recommendation to avoid t use of atropine in iritis, met with in the same edition of his work. B I am happy to state that Mr. Dixon has, on both of these points, se the error of his ways and now come around to the views of the mode school. He at present uses atropine in iritis, and says, referring to t purulent ophthalmia of infants, "Sometimes it is useful to change t local application, and to use a solution of nitrate of silver, two grains the ounce, dropping a small quantity on the conjunctiva twice or thri a day. This change of stimulus often acts beneficially," etc.[4]

Mr. Hutchinson refers only to the purulent ophthalmia of syphilit infants, and even here enumerates nitrate of silver in his list of remedie

Mr. Lawson I will also quote in full, and italicize the portion of t text overlooked in Dr. Williams's quotation: "The indications f treatment are, to wash away the discharge from the eye as often as it collects, and to use some astringent lotion to arrest the re-secretion of the purulent matter. *Lotions of alum or of sulphate of zinc and alum, and drops of nitrate of silver are the most useful astringents in purulent ophthalmia.* The lotion which I generally use is one of alum," etc.[1]

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[1] Saunders, Diseases of the Eye, page 100.

[2] Sir William Lawrence, On Diseases of the Eye, pages 224, 226.

[3] Druitt, Surgeon's Vade Mecum, 1870, page 368. With reference to the above I ou to add that Dr. Williams and I evidently quote from different editions.

[4] Holmes, System of Surgery, vol. iii., page 49.

The sister at the head of St. Mary's Asylum in Dorchester certainly testified that she had nowhere seen recovery so early, and with as little suffering, as under Dr. Williams's plan. This statement, she informs me, was based on five cases thus treated. Were her own eyes to be treated, she would, however, prefer the single daily application of nitrate of silver to the frequent use of the alum wash. The assistant sister, who has particular charge of the infants, assures me that she has been sometimes obliged to use this lotion every hour, day and night, for a week, and that it is exceedingly difficult to hold the children, who struggle and give evidence of considerable suffering when the application is made.

Dr. Williams asserts that he prepared his original article because he had, within a short time, "witnessed cases of blindness where the disease had been treated (as would be deemed judiciously) with nitrate of silver." Are we to infer from this somewhat enigmatical statement that the blindness was due to the use of the nitrate of silver? If so, I challenge a full report of the cases and a description of the manner in which the caustic was applied.

I think I have a right to complain that the views of the school I strive to represent have hardly been done justice to in Dr. Williams's reply. Nitrate of silver in substance I never alluded to; its half-sister, *lapis mitigatus*, was to be used only in cases of exceptional severity, which had resisted the milder solution. This solution (ten grains to the ounce) was to be carefully applied, once in twenty-four hours, to the everted lids, and immediately washed off with cold water. All other applications were thus to be superseded.

A trial of this method I again invite; its results will speak for themselves. Let not its condemnation be blindly accepted, proceeding though it may from men of large experience, justly honored and respected in the profession. Twenty years ago no less a teacher than Graefe uttered a warning against the doctrines of such as protested against caustic treatment, and who claimed that its results were imper- contrary, that in blenorrhœa caustic treatment is not only admissible fect and its use dangerous. "When we believe," he says, "on the but indicated, in all cases and from the outset, that this treatment is not alone devoid of danger but exercises an undisputed sway over the most serious forms of disease, ... it becomes our bounden duty to assert this conviction, shared with many colleagues, against the assertions and warnings above referred to, which are uttered by some physicians large experience."[1]

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[1] Lawson, Diseases and Injuries of the Eye, page 19.

We are adjured to "let the babies off easy." If we go a step furth and apply this precept to their moral training, we are met by a remo strance from the wisest king of Israel. The sting of the caustic thou sharp is temporary, its results most salutary, as each may ascertain himself.[2]

RECENT PROGRESS IN THE TREATMENT OF THROAT DI EASES.

BY F. I. KNIGHT, M. D

We have thought it best to devote the space allotted to us to what new and interesting in the triennial report from the well-known clin for laryngoscopy at Vienna.[3]

Dilatation of Strictures of the Larynx. — Schrötter has tried to dila the glottis in six cases of stricture following perichondritis, so that th patients might go without the canula which had been previously intr duced. He tried at first the common elastic catheter, which was pass through the stricture from above, with the aid of the mirror, and the drawn through the external opening by means of a small hook, the canu having been removed. But it was found to be impossible to leave th catheter sufficiently long in this position, and it was difficult at times reintroduce the canula; moreover, the operation was very annoying, an the canula was soon used up. Then he tried a catheter with a button the end of its stilette, so that it could be fastened in the fenestra of th canula, and could be retained several hours. But this method was n entirely satisfactory. The patients bit the part of the catheter lying the mouth, and they could only take liquid nourishment, unless th instrument was removed. He then had made cylinders of tin, about a inch and one half long, after the method of Trendelenburg for the tr chea. Through these passed a brass rod, which projected a little, an terminated below in a conical button and above in an ear through whic a strong thread was drawn. To introduce the bougie into the laryn the thread was drawn through a catheter-shaped tube by means of curved stilette, hooked at the end and fastened to the wings on the en of the handle with which the tube was provided. Thereby the boug and tube became, as it were, one. To prevent any turning of the boug a slit was made in the upper end, into which a little projection on th end of the tube fitted. These bougies, after they had been borne without the canula as long as possible, were held fast at their lower extremity in the fenestra of the canula by means of a little pincette, the thread loosened, and the tube removed. The thread only hung out from the mouth of the patient, and did not interfere with chewing or swallowing. Thus the bougies could be left in for days. In the beginning of each case round bougies were used; afterwards those triangular in section, as being nearer to the shape of the glottis. In some of the cases a three-bladed dilator, opened by means of a screw, was employed also.

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[1] A. von Graefe, Archiv, vol. i., part 1, pages 199, 200.

[2] This discussion ends here. — EDS.

[3] Laryngologische Mittheilungen. Jahresbericht der Klinik für Laryngoskopie an Wiener Universität, 1871-73. Herausgegeben von Leopold Schrötter. Wien. 1875.

With the intention of extending the operation to those cases of laryngeal stricture in which laryngotomy had not been performed, Schrötter in one case tried hollow bougies of the same shape, but so much mucus ran through them into the trachea as to produce constant cough, and they were given up.

In the first case, in order to preserve the calibre of the larynx after it had been dilated, a catheter-shaped tube of hard rubber, of the size of the normal glottis, was introduced through the glottis into the trachea, once or twice or oftener in the day.

An accident worthy of note occurred to one of the patients, in that he swallowed a bougie of a large size, together with the string a foot and a half long. Both passed with stool on the third day, without having caused any special trouble.

The report of the final result in these cases is deferred, but Schrötter concludes that stricture of the larnyx can be dilated by this method, which is borne under all circumstances, only with more or less considerable unpleasantness; if one goes ahead too rapidly, pain in the head and throat, fever, and even fresh perichondritis and œdema occur, but these afford no reason to interrupt the treatment. The parts regain their normal motility, but do not lose their normal sensibility. It is not determined whether the larynx can be kept open in all cases so that the external opening can be closed.

Cysts of the Larynx. — Schrötter, in three thousand seven hundred patients examined in three years at his laryngoscopic clinic, found seven cysts varying in size from that of a hemp-seed to that of a cherry-stone. Two were situated on the lingual surface of the epiglottis, three on the edge of it, and two on the arytenoid cartilage. Two were removed, and the possessors of the others disappeared from observation.

Simple Epithelial Growths. — Of these there were four.

Connective Tissue Growths. — Of these there were thirty-nine. In only five out of twenty-two cases operated on was local anæsthesia necessary. It was employed in these cases in the manner already described in this journal. In two of them there were symptoms, not at all severe, of general narcosis. There was only one case of recurrence in the number, and Schrötter attributes this good fortune to his habit of cauterizing the seat of the growth immediately after the removal. Most of the growt were removed by means of the crushing forceps of Türck. Schrött believes that all laryngeal growths which are suitable to remove at can be removed laryngoscopically through the mouth, and that it is n necessary to open the larynx from without.

Carcinoma Laryngis was observed in twenty-six cases, in five which it was secondary to disease of the pharynx. Epithelial carcinon occurred in seventeen cases. Seven withdrew from further observatio The remaining ten were operated on, the vegetations being crush and torn off, and cauterized with caustic potash. Local anæsthesia w employed in two cases. Four cases were "cured;" of two, no positi result can be given; three are not cured, and one is still under trea ment.

Medullary carcinoma was observed in three cases, carcinoma fascic latum in one.

Changes in the Larynx in Tuberculosis. — Schrötter observed on a very few cases in which the disease seemed to begin in the laryn and invade the lungs afterwards.

As quite characteristic in ulceration in consequence of tuberculosi Schrötter has found small yellow infiltrations of the size of a pin-hea in the mucous membrane, in which ulcerations afterwards appear Such infiltrations he has never seen in any other disease. Pain in de lutition was constant in ulceration on the posterior surface of th posterior wall of the larynx, whilst it was observed in only a fe cases of simple swelling of the artyenoid cartilages, even though th was considerable. Schrötter has found pain in deglutition very seldo in swelling or even ulceration of the epiglottis. In one case the nece sity of laryngotomy was avoided by the passage of a hard rubber tub suitably curved, through the constricted larynx. After this had bee done once or twice a day for thirteen days, the difficulty in breathin disappeared.

Syphilitic Affections of the Larnyx. — Of these there were one hu dred and twenty cases, of which twenty were of perichondritis. I cases of ulceration where tuberculosis or some other disease was n indicated, syphilis was considered to be the cause. Schrötter does n consider the possibility of extensive ulceration from simple catarrh be established. In symptomatic catarrh, however, as in typhoid feve he says considerable ulceration may occur. The catarrh was treate by inhalations, the ulcerations by iodglycerine or nitrate of silver, an iodide of potassium or mercurial inunction (or both together) inte nally. Local treatment is advocated without waiting trial by consti tional treatment alone.

Affections of the Throat in Elephantiasis Græcorum. — Schröt reports one case from Hebra's clinic, as follows: The patient wa

Servian, twenty years old, who had had the disease thirteen years. The papillæ circumvallatæ of the tongue were very prominent, the mucous membrane covered in many places with thick layers of whitish epithelium, especially on several nodes of the size of a bean, which were situated on the base of the tongue. The uvula and arch of the palate were thickened and covered with a grayish-white epithelial layer, which in some places was drawn into superficial radiations. The mucous membrane on the posterior wall of the pharynx above was moderately reddened and relaxed, and below presented the same appearance as the soft palate. The edge of the epiglottis, the aryepiglottidean folds, and the posterior wall of the larynx were noticeably swollen, rigid, irregular in outline, and covered with a thick layer of whitish epithelium, which in places showed slight loss of substance. This was also seen on the vocal cords, which were considerably thickened, with rounded edges, of grayish-white color, and of normal motility. The glottis, however, even on the strongest inspiration, had only a moderate width. Schrötter also gives the result of his examination of patients with this affection in the hospitals of Sweden and Norway, made during a journey through those countries. In these cases he found little connective-tissue nodes on the epiglottis, aryepiglottidean folds, or posterior wall, or symmetrical thickenings on these places, or such uniformly over the whole larynx. In mild cases the parts seemed simply thicker; in graver cases the entrance to the larynx was narrowed by the rolling in of the sides of the epiglottis, and swelling of the aryepiglottidean folds, and in some cases there was ulceration of the new-formed connective tissue.

Foreign Body in the Larynx. — The following is a very remarkable case. A very intelligent man (his intelligence is important in the history of the case) first noticed at breakfast that his false teeth (a gold plate and four upper incisors) were missing. He concluded that he must have swallowed them in the night. The previous evening he had taken a simple meal, without much alcohol. When he began to hunt for his teeth he first felt some obstruction in the throat, and some difficulty in breathing. Schrötter saw him the same day. He spoke with ease, and complained of pain in the lower part of the throat. Laryngoscopic examination was difficult. A superficial examination showed nothing abnormal, and the foreign body was supposed to be in the œsophagus, and the probang demonstrated a resistance in the upper third. But nothing could be brought up. This failure, and the increased dyspnœa of the patient led Schrötter to make the most careful examination of the larynx, and after several trials a foreign body was seen under the vocal cords, and soon the plate and two teeth were made out with certainty. Dr. Czerny, then Billroth's assistant (now professor in Freiburg) was called to assist in laryngotomy. On examination he found nothing abnormal in the larynx, but the same resistance in the œsophagus. His attempt at extraction, however, sulted like Schrötter's. Schrötter now urged immediate laryngoto but Czerny, who knew of Schrötter's successful operations through mouth, thought he might attempt this laryngoscopically, as he saw foreign body so clearly. Although not expecting much from such attempt, less on account of the anatomical difficulties than because foreign body was turned with a smooth surface upward, thus cau the forceps to slip off, Schrötter, having other business, and wish moreover to inform the dentist, who had referred the patient to him the operation, and the patient being somewhat easier, consented make the trial at five P. M., with the aid of local anæsthesia. H ever, when Schrötter arrived at five o'clock he learned that the d nœa began to increase rapidly soon after three o'clock, so that Czerny, who was quickly summoned, performed laryngotomy though crico-thyroid membrane at once, and the point of his bistoury str the artificial teeth. The patient's respiration was suspended during operation. An attempt to remove the foreign body with the for failed, and it was then forced up through the glottis, and removed thro the mouth. As a precaution, a canula was introduced, which was moved at the end of thirteen days. Six weeks after the accident, external wound being closed, and the patient entirely well, Schrö attempted to find out what had deceived both himself and Czerny in gard to the condition in the œsophagus. Finding the same obstruct he concluded that it was either the protruding lower edge of the cri or a very prominent vertebra, more likely the latter, as it seemed ra low for the cricoid, and projection of a vertebra was quite possibl the patient was of a decidedly rachitic build. Schrötter offers the foll ing point for reflection: *This patient, during sleep,* i. e., *during q respiration, when the glottis is not open to its greatest extent, got a for body into his larynx which exceeded in all its diameters a glottis ope as widely as possible, and moreover had not been conscious of this at o*

(*To be concluded.*)

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL S CIETY.

JAMES R. CHADWICK, M. D. SECRETARY.

FEBRUARY 25, 1875. DR. F. MINOT, President, in the chair.

Rooms for the Society Meetings. — The secretary, as the committee on ro read a communication from the President of the Boston Society of Nat History inviting the Suffolk District Medical Society to hold its next reg meeting in the building corner Berkeley and Boylston streets. If though sirable, it is likely that the several medical societies may make arrangements to hold all their meetings in this room at less than half the rent now paid for the rooms in Temple Place. On motion of DR. WILLIAMS, it was voted to accept this invitation.

Bright's Disease. — DR. J. B. TREADWELL presented two kidneys affected with this disease. The most notable feature of the case was the almost complete absence of the ordinary forms of casts. At first there was some blood in the urine; pus in quite large amount was present throughout, as was epithelium from the renal tubes; it was but occasionally that a granular or hyaline cast was formed, and when present it was very small. On one occasion, in the second month of the disease, so far as could be judged, a few large fatty casts were seen. The renal epithelium was generally in a state of fatty degeneration. At first there were traces of albumen, but during the last three months it was entirely absent. The specific gravity ranged from 1008° to 1014°. The patient had been overtaxing himself in the practice of law previous to the appearance of the first symptoms; there were vomiting and diarrhœa, which persisted for a short time; facial paralysis manifested itself on the left side. As he had suffered from constitutional syphilis, a gummy tumor of the brain was diagnosticated in addition to the renal disease. After the first two weeks the most marked symptoms were physical and mental weakness, mental aberration, imperfect vision, œdema of the face, and a continuance of the facial paralysis; the latter had almost disappeared three weeks before his death. Thirty-six hours before death there was complete left hemiplegia. The patient died comatose, five months from the date of the original attack. At the autopsy a gummy tumor in a softened condition was found just beneath the floor of the right lateral ventricle. The kidneys were small and granular, the cortical portions very thin, and the tubes, both straight and convoluted, were denuded of their epithelium; the interstitial tissue did not appear to be very much increased. Patient was forty-six years old.

In another case, which terminated fatally also at the end of five months, the only symptoms until a fortnight before death were physical prostration, left choroiditis, œdema of the face and occasional disturbance of the digestive functions. The specific gravity of the urine ranged from 1025° to 1030°. At one time there was a doubtful trace of albumen, but with this exception none was ever found, although a search was made, as in the other case, two or three times a week. There was considerable blood at the outset, and much pus throughout. Only three or four times were any casts present, and then only one or two were found at a time; these were small and granular. The urine was constantly loaded with tubular epithelium. Mental symptoms appeared two weeks before death. The woman was about thirty years old.

Colloid Degeneration of both Ovaries.—The case, reported by DR. G. H. BIXBY, will be published in full. The question of malignancy was alluded to as an important one. Dr. Bixby had seen two malignant tumors of the ovary, one scirrhous and the other medullary. Œdema was a prominent symptom in each case, and should, in his opinion, always contra-indicate an operation. With reference to the length of the abdominal incision in ovariotomy, he thought that it had a decided influence on the result.

Dr. Chadwick, on the contrary, believed that too great importance wa
attributed to this latter point. Spencer Wells had published two groups of case
which demonstrated that the mortality was greater when the incision was e
tended above the umbilicus. This is undoubtedly true, but he does not tak
into account the fact that the class of cases which require this length of inci
ion are those in which the tumor is larger, or there are extensive adhesions o
other complications, which alone would make the difference in the rate of mo
tality. He admits that there is no appreciable difference in the results o
incisions varying from two to six inches. The length of the incision should a
any rate be secondary to almost every other consideration.

Ovarian Tumor. — **Dr. M. B. Leonard** gave the history of a patient wit
an ovarian tumor, who was suddenly attacked with intense abdominal pai
and died within a week. At the autopsy forty pounds of a jelly-like fluid we
taken from the tumor, and twenty pounds from the abdominal cavity.

Embolism of the Retinal Artery. — **Dr. H. W. Williams** spoke of sudde
blindness from this cause in the left eye of one of his patients, who had an aneu
ismal enlargement under the right clavicle. The diagnostic signs of this lesi
are almost complete sudden blindness of one eye with absence of pain, a dim
nution of size in the retinal arteries and veins, a dark central spot in the ma
ula lutea with a whitish halo around it, fading away toward the edges. It w
curious that the clot should have been carried from the aneurismal cavity
the right side to the left eye.

Loss of Vision in Bright's Disease. — In reply to a question of **Dr. Lym**
Dr. Williams stated that a temporary recovery of sight was not uncomm
This may, in a measure, be due to the absorption of the effusion and to the a
commodation of the vessels to the fatty condition of the tissues, and yet no p
manent improvement in the fatty degeneration take place.

Treatment of Diphtheria. — **Dr. G. H. Lyman** advocated the use of toni
brandy, Dover's powder, etc., and locally the application of a strong soluti
(sixty grains to the ounce) of nitrate of silver below the membranous patch
the object being to set up a healthy inflammation at the top of the phary
Patches of pultaceous membrane are frequently not of diphtheritic nature, a
should not be mistaken.

Dr. J. Ayer heartily indorsed this treatment, with the addition of ice
suck.

The Subcutaneous Injection of Quinine to increase the Strength of Labor P
had recently been tried unsuccessfully by **Dr. Harlow**. In reply to
query as to whether this was the common experience, cases of decided be
from this practice were reported by **Dr. Lyman** and **Dr. Chadwick**.

PUBLIC PARKS AND PUBLIC HEALTH.

Dr. Clarke's argument in favor of public parks needs no special commendation at our hands to introduce it to the favorable attention of our readers. Its comprehensive statements and sound conclusions will be sure to attract general notice. Although it was intended as a plea in behalf of a local project, and aimed to present the special need which the city of Boston has for additional parks and public pleasure-grounds, we believe that this address before the legislative committee may well be studied in its general applications, and that its facts and deductions are of far-reaching significance. Of how many municipalities in this State at the present time may it not be said, "Mutato nomine de te fabula narratur"? How many rapidly-growing towns and thriving young cities are there, whose authorities have scarcely given a thought to the demand which some future generation assuredly will make for parks and open spaces as hygienic necessities to offset the overcrowding of habitations? To the sanitary officials of all these populous centres, such an address as that of Dr. Clarke is of great moment, for it presents with force and clearness the cogent reasons for reserving generously-bounded tracts of land to be held forever as a common safeguard in behalf of the public health. We trust that this discussion on public parks, which for the time has been transferred from our city hall to the general court, will end in the bestowal of properly-limited authority upon cities and towns to take possession of lands for the public benefit.

Concerning the matter immediately in hand, the special need which Boston has for additional public grounds, the Journal long ago placed on record its hearty sympathy with measures looking toward the fulfillment of that sanitary need. Into the pecuniary elements of the discussion we do not feel prepared to enter, except so far as to repeat the suggestive adage, "Public health is public wealth" — the wise saying of him whose image adorns the very entrance to the costly building wherein our municipal law-givers meet in council.

MEDICAL NOTES.

— The success of Volkmann's *Klinische Vorträge* has evidently induced Dr. Seguin, of New York, to attempt an American series. The first two of these ave already appeared, and a number of others have been announced. Clin- al surgery is represented by Dr. Sayre in a lecture on hip disease. This is rhaps not the most fortunate selection which might have been made, being a *umé*, we presume, of the numerous articles on this subject which have been en to the medical public during the last few years by that author. The sec- lecture is by Dr. Jacobi, on Acute Rheumatism in Infancy and Childhood. s carefully prepared, and, if taken as a sample of what is to come, jus- hopes of success to this enterprise. A number of lectures are promised ew York, Philadelphia, and Boston physicians. The publishers are G. P. am's Sons.

— The *Centralblatt für Chirurgie* is a new German weekly journal devot to surgery. It contains abstracts of all surgical articles of importance, a occasional original communications. The articles are short, readable, and w selected. This style of periodical is exceedingly useful to those who desire obtain a knowledge of the novelties of medical science without the labor searching through a vast number of journals. With this journal, the *Centra blatt für medicinesche Wissenschaften*, and the *London Medical Record*, one ca be independent of all medical libraries, book clubs, or expensive journals. T editors of the new journal are Dr. Lesser, of Berlin, Dr. Schede, of Halle, A. and Dr. Tillmans, of Leipzig.

— The *New York Medical Record*, in speaking of the "commencements lately held at the medical schools of that city, states that the number of st dents graduated is larger than ever before, and notices with satisfaction t increased proportion of those who have the degree of Bachelor of Arts. "T commencements," it says, "instead of being the occasions of a dry lecture an the presentation of diplomas, are now made attractive by addresses from em nent speakers, fine music, and all the other pleasant accessories which go make up first-class entertainments." We fail to see the advantage to be d rived from exercises of this kind, which, although serving as a plan of popul advertisement, do not succeed in raising a school in the estimation of the profe sion so much as increased attention to the standard of excellence requir at the examination, and improvements in the system of education employed.

— Professor T. G. Thomas, of New York, has recently performed a succes ful operation in a case of extra-uterine fœtation. The New York correspon ent of the *American Medical Weekly* describes the operation, which was pe formed on the 7th of February. After making an opening from the vagin into the sac by means of the galvano-cautery, without hæmorrhage, the operat performed podalic version, drew down the body of the fœtus, and extracted t head with a small pair of forceps. Part of the placenta came away readil but in the attempt to get the remaining portion, such a profuse hæmorrhag came on that he was obliged to inject a solution of persulphate of iron into t sac, afterwards packing it with cotton. With the exception of some slig symptoms of septicæmia, which soon disappeared under the persistent use carbolized water with glycerine, the patient's recovery was without any dra back.

This is the seventh case of extra-uterine pregnancy which Dr. Thomas h had an opportunity of seeing, and all of the others proved fatal except one, which the fœtus was passed by the rectum. Before the operation he had d termined to make an opening from the vagina into the sac, employing t galvano-cautery for this purpose, in order to avoid hæmorrhage, and passi between the layers of the broad ligament, to avoid the danger of peritoniti also to leave a glass tube in the sac, by which carbolized water might be i jected in order to avoid septicæmia.

In making the diagnosis of extra-uterine pregnancy Dr. Thomas laid gre stress upon the spasmodic attacks of agonizing pain, which show that the dilat Fallopian tube has begun to contract upon its contents. This is natur warning, and unless prompt interference is attempted, rupture of the cyst a fatal collapse are almost certain to follow.

— Late numbers of the *Medizinischer Jahrbücher* contain articles on many interesting practical and scientific subjects. This journal is edited by Dr. Stricker, of Vienna, and is a publication of the Imperial Society of Physicians. It may be looked upon as the scientific quarterly of Southern Germany, and the rival of the now celebrated *Archives* of Virchow. These are for sale by James Campbell.

SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

THE following operations were performed during the week ending Friday, March 19, 1875: —

1. Tracheotomy for cut-throat. 2. Cleft palate. 3. Cancer of face. 4. Stricture of urethra. 5. Stricture of urethra. 6. Cyst of face. 7. Ulceration of rectum. 8. Abscess. 9. Hydrocele. 10. Tumor of eyelid.

1. *Tracheotomy for Cut-Throat.* — The patient was an old woman. She attempted to put an end to her life by cutting her throat with a razor, a short time before she was brought to the hospital. On examination it was found that the wound in the skin had been closed with sutures, and hæmorrhage was going on underneath. The sutures were removed, the clots swept out, two vessels tied, and ice water applied. These measures soon controlled the hæmorrhage.

The wound was transverse, jagged, four inches long, and entered the pharynx between the superior border of the thyroid cartilage and the hyoid bone. The opening into the pharynx was three fourths of an inch long, vertically, and half an inch wide, and appeared as if a piece had been removed from the anterior wall above the larynx. The vocal cords could be distinctly seen. The patient was unable to swallow after the wound was reopened, all substances escaping from the opening. Although none of the large vessels were wounded, yet the hæmorrhage was said to have been free previous to her admission.

Dr. Cheever, anticipating œdema of the glottis, performed tracheotomy. A little ether was given, and the tube introduced into the trachea just below the thyroid gland. Respiration, which had been somewhat obstructed by the saliva running down into the upper part of the larynx, now became free and easy.

A large elastic catheter was then passed through the wound into the œsophagus and stomach, and about a pint of milk injected. This was to be repeated every six hours. The patient bore the operation well, and was not only greatly relieved at the time, but all risks of a fatal termination by œdema or spasm of the glottis were thereby avoided.

2. *Cleft Palate.* — A girl, ten years of age, had a fissure involving the soft, and half an inch of the hard palate. It was congenital and wide. Dr. Thorndike remarked that he thought this a better age to operate than infancy,

and that there would eventually be considerable improvement in her speech The levator and tensor palati muscles having been divided, the edges of th fissure were pared, and opposed by silk sutures. The cleft in the hard palat is to be closed at a future time. The operation was done under ether, an Smith's gag was used. The hæmorrhage was less than is usually present i this operation.

3. *Cancer of the Face.* — The patient is sixty years of age. The tumor ha been removed twice, the second time being about two months ago. She wa much relieved by both operations, and begged for another to relieve the intens pain. Her suffering was so great that large doses of morphia failed to reliev it. Both of the previous operations had relieved the pain for some weeks The growth had extended backwards into the pharynx, and upwards throug the floor of the orbit on the left side, and also into the temporal fossa. It ha not ulcerated nor bled. Dr. Cheever said he consented to do the operatio for the sole purpose of relieving her pain, not that he expected to prolong he life.

A diagonal incision was made downwards and inwards below the left ey and the growth rapidly scooped out with the fingers, and an occasional touc with the knife. The floor of the orbit was removed, but the eye, not bei involved in the growth, was left in its place. The wound was thoroughly ca terized with chloride of zinc, and then packed with a compress wet with fer alum and filled with bits of sponge, and a tight bandage applied. T hæmorrhage was not profuse, and was completely controlled by the abo measures.

4. *Stricture of Urethra.* — The patient is thirty years of age. He c tracted gonorrhœa in the army, and has had symptoms of stricture for sev years. He had an attack of retention at his entrance to the hospital, wh Dr. Cheever relieved with a capillary bougie. The stricture is in the me branous portion of the urethra. A fine whalebone bougie was passed thro the stricture, which served as a guide to a large-sized tunneled sound. T having been passed into the bladder, the stricture was stretched or ruptu so that a No. 10 silver catheter went through easily.

5. *Stricture of Urethra.* — This patient was forty years old, and had ha stricture eight years. It was three inches from the meatus, and took onl capillary bougie. Dr. Cheever ruptured it with Holt's dilator, and passe No. 10 silver catheter into the bladder.

Both of these strictures were very hard, and required considerable forc dilate them. But notwithstanding the force used there was very sl hæmorrhage. Neither patient took ether, and the pain was apparently very severe. A sound is to be passed every two or three days.

7. *Ulceration of the Rectum.* — A middle-aged woman had an exten ulceration of the rectum, extending down to the external sphincter. She diarrhœa, and pain at defecation. The disease was specific, and of s months' duration. Dr. Thorndike applied nitric acid to the ulcerated sur and cut off some small condylomata about the anus. A cold-water dres was applied, and opium ordered to control the pain.

Geo. W. Gay, M.

LETTER FROM PHILADELPHIA.

[FROM OUR REGULAR CORRESPONDENT.]

MESSRS. EDITORS, — The agony of the yearly medical examinations, the pleasant excitement of the annual commencements, and the startling gastronomic feats at the post-graduation suppers are over. Jefferson College graduated one hundred and seventy men; the University, one hundred; the Pennsylvania College of Dental Surgery, and the Philadelphia Dental College, twenty-seven and forty-one respectively; the Homœopathic School, fifty-one; and the Women's Medical College, I believe, twenty-six women. I was able to attend only the commencement exercises of "Jeff" College. The graduating class were an unusually fine-looking body of men. They represented twenty-seven States and two foreign countries. Seven prizes were awarded to competing graduates, namely, a prize of one hundred dollars, by Henry C. Lea (the medical publisher), for the best thesis; one of fifty dollars, by the Professor of Surgery (Professor Gross), for the best report of his surgical clinic; one of fifty dollars, by the Professor of Obstetrics (Professor Wallace), for the best paper on the Descriptive and Relative Anatomy of the Gravid Uterus; one of fifty dollars, by the Professor of Practice (Professor DaCosta), for the best report of clinical cases; one of fifty dollars, by the Professor of Anatomy (Professor W. H. Pancoast), for the best anatomical preparation contributed to the college museum; one consisting of a pocket operating case, by the Demonstrator of Anatomy (Dr. T. H. Andrews), for the best dissection in the anatomical room; and, finally, the Toner medal, presented by Dr. J. M. Toner, of Washington, D. C., for the best thesis based upon original investigation.

These prize-offerings are an excellent and healthful stimulus. There were also six cases of honorable mention of students who competed without winning. During the exercises a very fine half-length portrait in oil of Professor Samuel D. Gross was presented to the college, on behalf of the alumni, by Dr. W. B. Atkinson. The valedictory, a most eloquent address, was delivered by Professor Gross, his subject being The Glories and Hardships of a Physician's Life. Few of our medical men are more familiar with these opposing aspects of the medical profession than is Professor Gross. His is a noble, enviable record, one which should be an incitement to every young man in our profession. The secret of his success lies not alone in his great talent, but chiefly in the word *work*. There were years in his life when he fought odds like a gladiator. Look at the result. He is known on both continents. He is the author of voluminous works on surgery and pathology, which have been translated into more than one foreign language, and are known the world over. He has instructed several thousand students (themselves, some of them, now famous) in surgery and surgical pathology. The latter fact alone would give him a well-won reputation. Moreover, he has received the extremely rare compliment of the degree of LL. D. from the University of Oxford. Two pleasant incidents which occurred during his last visit to Germany will show in what estimation Professor Gross is held by no less a man than Virchow. He first presented his card to Virchow at the Pathological Institute in Berlin, at an hour when the latter was engaged in demonstrating before a class the pathological condition of a cadaver. Upon receiving the card Virchow stopped his demonstration, washed his hands, and turned to greet Professor Gross in the most cordial manner, detaining him in conversation for a considerable length of time. Those who are familiar with the perfect independence and almost arbitrary manner of Virchow at such times, will appreciate the full meaning of this courtesy.

Virchow shortly after gave Professor Gross a dinner, having invited Langenbeck, Gurlt, and Von Graefe, of Berlin, Donders, of Utrecht, and others to meet him. Professor Gross sat at Virchow's right. After the dessert Virchow rose, and, taking Gross by the hand, at the same moment drew from beneath the table a copy of Gross's Pathological Anatomy, and laying it upon the table, complimented the work in high terms. He said it had been a helpful friend to him, and congratulating himself upon the pleasure which it gave him to meet the author, he completed his remarks by addressing Gross as the "father of pathology in America." It was a graceful compliment.

The insane department of Blockley (Philadelphia) Hospital is to be increased by the addition of three pavilion buildings at an expense of fifty thousand dollars. The old wards of this department have long been crowded to a dangerous excess by the unfortunates confined therein.

Dr. Kirkbride's yearly report of the Pennsylvania Hospital for the Insane shows that in six thousand eight hundred and ninety-nine patients the most prolific cause of insanity was ill health, there being one thousand two hundred and forty-nine such cases. The next principal cause was intemperance, six hundred and ten cases being attributed to it. The whole number, of course, covers years of the history of this admirable institution.

Since I last wrote you a committee appointed by the State legislature have visited the University Hospital, for the purpose of inspecting the bui ings with reference to the new appropriation asked for by the hospital authorities. The funds are needed to complete an additional wing of the hospital building. During the visit of the committee Professor Pepper addressed them to the effect that the hospital is in every sense a State charity. It is the property of the community at large. No profit is derived therefrom. Lectures are free to all students who may wish to attend them. The appropriation asked for was one hundred and twenty-five thousand dollars, but with the proviso that it might not be given until a like amount had been first raised by the hospital authorities by private subscription. The committee expressed willingness to aid the project, and will doubtless make a favorable report.

An ably written article by Dr. Charles P. Putnam upon the systematic training of nurses, published in a recent number of the *Penn Monthly*, has been largely read here and much complimented. Dr. Putnam will however pardon me if I allude to his error in believing the first training-school to have been that opened at Bellevue Hospital in 1872, and that the schools in Philadelphia "are not regularly organized." The truth is that the first training-school for nurses was opened in Philadelphia, in 1839, by Dr. Joseph Warrington, in connection with the lying-in hospital. It has been worked so quietly that not only is it little known outside the city, but comparatively few Philadelphians have more than heard its name. Dr. Warrington's object primarily ras, "to supply respectable women with medical aid; secondly, to establish a chool in which young physicians could become familiar with obstetrics, and ood women be trained to become their assistants, and be fitted to take care, ot only of the poor, but also of the wealthy patient." Moreover, in 1861, hen the Women's Hospital was chartered, a training-school for nurses was ecifically mentioned as one of its branches; and up to 1872, though in a nall way, such training was carried on. In 1872 an endowment of about nine ousand dollars placed the school upon a sure foundation, and thus far forty- x nurses have been under instruction; forty-one of this number have grad- ted. At the Episcopalian Hospital is also a nurses' training-school, which, wever, is not yet properly developed. Thus it will be seen that Philadel- ia, in comparison with other American cities, is well provided with training- hools. The main difficulty in the way of organizing a regular body of trained irses is the trouble experienced in finding women who are suitable for the ork. During seventeen years two hundred and seventy-five women applied r admission to the school of the lying-in hospital. Only eighty-six were lmitted. At the Women's Hospital the forty-six mentioned were selected om one hundred applicants.

A most interesting biographical sketch of the life of the late Dr. Rush, hose brilliant success in medicine will not soon be forgotten, was recently iblished in one of our daily journals. It was he who said, "Let my epitaph , He fed fevers." For such was his clear-sightedness that, even in the day of arvation diet, he saw how much wiser it was to supply daily fuel to the fires fever than to allow it to devour the body of his patient. He made enemies this as well as by other independent and original modes of treating disease. hink a brief *résumé* of this sketch will interest your readers.

Born in a village just out of Philadelphia, in 1745, Rush received his degree A. B. at Princeton College in 1760, and although a mere boy was the peer of of his fellows in all his collegiate studies. Immediately after completing his giate course he entered upon the study of medicine, and was one of the ten ents who attended Dr. Shippen's course of anatomical lectures, the first given in this country. Gifted with an investigating mind, Rush studied iously until 1766, when he sailed for Edinburgh, and, after two years of work, received his degree of M. D. from the university of that city. He ave a year to Continental travel, mingling with the most cultivated med- en in Paris and London. At the close of this year he returned to Phil- ia, and began the practice of medicine. At the very early age of twenty- was elected professor of chemistry in the College of Philadelphia, and a frequent contributor to medical and general literature. The present ity of Philadelphia was at this time in process of development, lectures een delivered at irregular intervals for a year. The acquisition of young npleted the faculty of the first medical school in the United States. een years afterward the primitive institution was merged into the niversity, and Dr. Rush, recognized as one of the most brilliant young of the country, held the position of professor of the institutes of and of practice, as well as of clinical medicine. He was an exceed- te man, garnering with care every floating fact, theory, and incident for future use, absorbing everything, forgetting nothing. In 1790, after practical experience of twenty years, he published his new principles of me icine. His views met with strong opposition. He had great confidence in tl lancet, and a lasting faith in the power and utility of calomel, which he terme "the Samson of the materia medica." His opponents accepted the illustratio jocosely remarking, "It has slain its thousands." These powerful agencie under the skillful control of Dr. Rush, were productive of beneficial result.

In 1793 Philadelphia was terribly stricken by yellow fever. It raged from Ju to November, creating an average death-rate of forty daily, with a final aggr gate of five thousand victims. The city was panic-stricken. During th frightful crisis Dr. Rush made Herculean efforts to subdue the deadly enem working practically a portion of his time, and devoting the remainder to thorough scientific analysis of the disease. He visited one hundred and fif patients weekly, and saved thousands of lives by his original and judicio treatment. His special method of handling the fever, in spite of its succe was bitterly reviled. Journalists, pamphleteers, and scurrilous anonym writers attacked him with fierce malignity, until the discussion, primarily bas on questions of professional skill, sank into petty persecution. He was st matized as a murderer, and threatened with expulsion from the city. Harvey injured his professional prospects by his theories concerning the c culation, and was hooted as a common fool, so did Dr. Rush lose public c fidence because he bravely turned his back upon the beaten path to subdu pestilence heretofore never vanquished. But he moved on calmly and un teringly.

On the termination of the fever a motion to thank the faculty in gene and Dr. Rush in particular, for eminent services during the epidemic, w offered at a large public meeting, but not a man in the audience was b enough to second it, and it failed.

Dr. Rush finally turned upon one pamphleteer of bitter force in invecti who violently attacked him, and made him pay five thousand dollars for l sport. This was one of many assaults made upon Dr. Rush, but he surviv them all, and built up and retained the largest practice in Philadelphia. few years afterwards a reaction set in, soon after of the gift of a gold med which Rush received in 1805 from the King of Prussia, in recognition of hi replies to certain questions touching the treatment of yellow fever. For th same reason the Emperor of Russia sent him a brilliant diamond ring, and th Queen of Etruria a gold medal.

Dr. Rush was a voluminous writer. Out of seven large volumes six were upon medical subjects. His Medical Inquiries and Observations, Diseases of the Mind, Medical Tracts, Health, Temperance, and Exercise, gave him a high reputation at home and honorable notice abroad. In early life he found time to study politics, not as a selfish partisan, but as an honest, noble-minded citizen. In 1776 he was a member of the celebrated congress which signed the Declaration of Independence. In 1777 he was appointed physician-general of the military hospitals of the middle department. In 1787 he was a member of the Pennsylvania convention which ratified the Federal constitution. In 1799 President Adams appointed him treasurer of the United States mint, solely on account of his faultless character and sterling integrity. The office was an unsolicited gift, and he held it fourteen years.

But few cities in Europe, and certainly none in this country, have such a variety of charitable institutions as Philadelphia. No one citizen contributed more to the organization of many of these than did Dr. Rush. In 1785 he planned and organized the Philadelphia Dispensary, the first institution of the kind in America. He was president of the Philadelphia Medical Society; president of the Philadelphia Society for the Abolition of Slavery; founder of the Philadelphia Bible Society; vice-president of the celebrated American Philosophical Society; a strong, practical friend of the temperance cause, and his work, An Inquiry into the Effects of Ardent Spirits upon the Human Body and Mind, is full of valuable information. He was a lofty-minded Christian gentleman. His private life was one of unsullied purity, and his public career unsurpassed in its many brilliant developments and practical results for the common good of his country and his fellow-men.

In my next letter I hope to give you interesting facts concerning Dr. Keen's later experiences in the use of chloral as a preservative agent.

UNGENANNT.

PHILADELPHIA, *March* 23, 1875.

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WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending March 27, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

Bronchitis, pneumonia, and rheumatism continue to be the prevalent diseases in the State at large.

The diseases prevailing locally are as follows: —

In the Connecticut Valley, influenza is unusually abundant.

In the Midland section, influenza, measles, and diphtheria prevail.

In the Northeastern district, influenza and measles are reported.

In Boston and its suburbs, measles, influenza, and scarlatina are prevalent. Croup and diphtheria are increasing.

In the Southeastern counties, influenza and scarlatina are common. Small-pox has not yet disappeared from Fall River; "out of eighteen cases of the disease only two deaths have occurred."

The report of the public health for the week is favorable; nearly all the disases are less prevalent than they were at the last report.

The Metropolitan section is the field of the maximum prevalence of measles nd scarlatina.

F. W. DRAPER, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MARCH 20, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	530	26
Philadelphia	775,000	379	25
Brooklyn	450,000	220	25
Boston	350,000	165	25
Providence	100,000	34	18
Worcester	50,000	13	14
Lowell	50,000	16	17
Cambridge	44,000	21	25
Fall River	34,200	10	15
Lawrence	33,000	11	17
Springfield	33,000	4	6
Lynn	28,000	11	20
Salem	26,000	10	20

MILITARY APPOINTMENTS.

DR. EDWARD J. FORSTER, of Boston, reappointed Surgeon of the Fifth Regiment of Infantry, M. V. M., passed a successful examination before the Board of Medical Officers, M. V. M., March 13, 1875. B. JOY JEFFRIES,
Surgeon First Corps Cadets, Acting Recorder of Board.

By General Orders No. 5, C. S., A. G. O., Edward J. Forster, Surgeon of the Fifth Regiment of Infantry, M. V. M., is reappointed a member of the Board of Medical Officers, M. V. M.

Dr. Preston M. Chase, of Danvers, promoted from Assistant Surgeon to Surgeon of the Eighth Regiment of Infantry, M. V. M., passed a successful examination before the Board of Medical Officers, M. V. M., March 16, 1875. EDWARD J. FORSTER,
Surgeon Fifth Regiment of Infantry, M. V. M., Recorder of Board.

Dr. Charles A. Carlton, of Salem, appointed Assistant Surgeon of the Eighth Regiment of Infantry, M. V. M., *vice* Chase promoted, passed a successful examination before the Board of Medical Officers, M. V. M., March 19, 1875. EDWARD J. FORSTER,
Surgeon Fifth Regiment of Infantry, M. V. M., Recorder of Board.

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OVARIOTOMY.[1]

BY JAMES R. CHADWICK, M. D.,
Lecturer on Diseases of Women, Harvard Medical School.

I. — Mrs. M. was recommended to me by Drs. Inman and Milliken, of Cherryfield, Me. The patient is forty-six years old, was married one year ago, has never been pregnant; menstruation, irregular for four years, last occurred in September, 1874. The size of her abdomen has been gradually increasing for two years; this increase was recognized eighteen months ago as due to the presence of a tumor. Of late there has been much suffering from back-ache, and especially from pain in the left side of the abdomen. The bowels have been constipated.

Four brothers have died of phthisis, as have many cousins. The patient has been an invalid all her life. When fourteen years old she fell and injured her spine.

The girth at the umbilicus is forty-one and three fourths inches. On ercussion there is flatness throughout the abdomen, except in the right umbar region, where there is tympanitic resonance. Fluctuation is ninterrupted in all directions. The abdomen is symmetrically dis- nded. The abdominal walls, although tense, are freely movable over e tumor. The uterus is retroverted, and quite movable independently the tumor. The latter does not extend into the small pelvis, and can th difficulty be reached per vaginam. Fluctuation bimanually is unin- rupted. There is slight undue prominence of several dorsal ver- ræ.

Diagnosis. — Unilocular ovarian cyst, with no solid part and no adhe- is. This was corroborated on the next day by Dr. G. H. Lyman.

rognosis. — Four chances of recovery out of five.

recautions against infection were very many and minute: A house omerville surrounded by a garden; a large sunny room never previ- y occupied by a sick person; a new top mattress; an open fire; a worthy nurse who had been disengaged for five weeks, in a freshly- ed dress; no spectator admitted who had attended any infectious e, suppurating wound, or autopsy for the week previous; Dr.

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[1] Read before the Suffolk District Medical Society, January 30, 1875.

Lyman, on whom I relied as an assistant, was not accepted, owing to a inflamed matrix on one finger; new sponges; all instruments boiled and subsequently washed in a solution of permanganate of potash hands of operator and of assistants washed in the same solution. abstained from visiting any but perfectly innocuous patients for tw weeks before operating.

Operation on January 16, 1875, with the assistance of Drs. J Homans and A. H. Nichols, in the presence of Drs. G. H. Lyman, J N. Borland, W. E. Boardman, and G. H. Bixby. Ether was administered by Mr. Fletcher Abbott.

Incision in linea alba three inches long. Cyst evacuated with Wells' trocar and rubber tube. Diagnosis verified; single cyst, no adhesion no solid part. Right ovary and uterus healthy. Pedicle, rather sho and broad, was secured by the Wells clamp and then divided. Or end subsequently slipped, and bled to the extent of one ounce, into th peritoneal cavity. It was secured, and the clamp readjusted. Fo silk sutures above and one below pedicle. End of pedicle carboniz with solid perchloride of iron. Wound dressed with dry lint. Abd men supported by cotton-wool, secured by long strips of adhesive pl ter. Tumor contained eleven and one half quarts of a thin flu and weighed twenty-five pounds.

After-Treatment. — No vomiting from ether. As there was no sho or loss of blood during the operation, as there was no danger of sub quent hæmorrhage, suppuration, and consequently of pyæmia, septi mia, or other complication which would make a demand upon her streng the usual stimulating treatment was not carried out. The predomin indication was to avert the peritoneal inflammation by diminishing th intensity of the reaction, and by the prevention of vomiting. In th impossibility of securing a specially trained nurse in this country, passed every night for a week in the house, and never left my patient by day for more than two hours at a time. Till the fifth day her only diet was ice and soda-water; a little beef-tea given on the second day was vomited at once, and my wavering resolution to persist in the light diet was strengthened. She had brandy (one drachm) on two occasions, to relieve epigastric distress. A troublesome cough was allayed by a chloroform mixture. The temperature fluctuated between 99° and 100.4°, and returned to the normal on the twelfth day. The pulse was never over 120. The last stitch was removed on the sixth day. The wound gaped superficially on either side of the pedicle. The clamp produced quite a deep slough in both flaps by pressure, and was removed on the eleventh day by division of the sloughing remnants of the pedicle. Distressing flatulence was relieved by enemata. The bladder was emptied every few hours with the catheter for several days. Six grains of quinine were given daily after the first week. The patient moved to the lounge on the sixteenth day. The wound was still suppurating and rather deep, but contracting rapidly.

The patient returned to her home in Maine two months after the operation. She had then nearly regained her usual health and strength. The incision had completely healed. She was rather constipated, and occasionally suffered from abdominal pains. These latter were unquestionably due to traction upon the pedicle. On vaginal examination the uterus, which at the operation had been brought with its left side apposed to the abdominal incision, had resumed the erect position, though its fundus was still firmly united to the upper end of the incision. On passing the uterine sound, the internal os and whole uterine cavity were found to be exquisitely tender. Laxatives, warm hip baths, and time were prescribed to relieve these conditions.

Spencer Wells has shown conclusively that attention to all the minutiæ above recorded, and incessant personal supervision of the after-treatment, have a very decided influence upon the result.

THE PHYSIOLOGICAL ACTION OF THEBAIN.

BY J. OTT, M. D., OF EASTON, PA.

THE alkaloids of opium at present as far as discovered are as follows: morphia, narcotina, codeia, thebain, narcein, pseudomorphia, papaverina, cryptopia, opianin, metamorphia, codamin, hydrocotarnia, lanthopin, laudanin, laudanosia, meconidin, and protopin. There are seventeen alkaloids and two organic acids. Apomorphia and codamin are derivatives, the first of morphia, the second of narcotin.

Thebain, or paramorphia, was discovered by Pelletier and Thiboumery in 1832. Couërbe obtained from forty pounds (livre) of opium fifty ounces of morphia, one and a half ounces of codein, one ounce of thebain, one ounce of meconin, and six drachms of narcein. Merck found in Bengal opium eight per cent. of morphia, three per cent. of narcotin, one per cent. of thebain, one half per cent. of codein, and a trace of meconin.

Magendie[1] first made physiological experiments with thebain. He found that one grain (probably the acetate), injected into the jugular or into the pleura, tetanized and killed dogs.

Orfila experimented with the nitrate (?) of thebain on dogs. In the first experiment ten centigrammes of the salt with twelve grammes of water were introduced into the jugular of a dog having fasted a long time. The animal soon made a deep inspiration, and fell into opisthotonos with convulsive movements, which lasted a few seconds. After a minute the walk of the dog was vacillating, as though he was intoxicate but no paralysis of the posterior extremities was perceived. Drowsine was also present. After ten minutes the animal began to recover, an next day was quite lively. In the second experiment Orfila injected int the jugular vein of a moderately strong dog a solution of thirty-fiv centigrammes of nitrate (?) of thebain in twenty grammes of wate Before the end of the injection, opisthotonos and convulsive movement ensued. After many curious movements the animal recovered i about twenty minutes.

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[1] Das Thebain: Eine Monographie. F. W. Müller, Marburg. 1868.

Albers made two experiments on frogs, with thebain in crystallize form. He gave one half and three fourths of a grain subcutaneously The toxic action appeared slowly. Convulsive cramps were observed and death took place after a considerable time. Müller thinks tha Albers used another alkaloid, probably caffein, but I see no very goo reason to doubt Albers's observations.

Bernard experimented on dogs, cats, rabbits, guinea-pigs, rats, pigeon sparrows, and frogs. He found thebain the quickest convulsivant, an other things being equal, the most deadly toxicant, compared with t five alkaloids, codein, morphia, narcein, narcotin, and papaverin. H states that a dog of seven to eight kilogrammes in weight died wh one tenth of a gramme of thebain in the shape of a muriate was inject into the blood. He further states that thebain caused not only conv sions but stoppage of the heart, and quickly ensuing rigor mortis.

Baxt[1] made a difference between large and small doses as rega effects on frogs. By the subcutaneous injection of about .00075 of gramme of thebain dissolved with hydrochloric acid and water, the ensued at first excitation for a minute, followed by rest; in three to minutes a comatose state, in which only strong irritation brought ou single reflex contraction, and after twelve to eighteen minutes a sta similar to that induced by strychnia — spontaneous cramps, and a heigh ened excitability lasting from three to six hours. These appearance could be brought out when the dose was repeated on the same day o on successive days. Frogs which had received .00225 of a gramme an .0045 of a gramme subcutaneously, had reflex tetanus at first, which became spontaneous, and the animals died in from two to six hours. When six or seven thousandths of a gramme were introduced subcutaneously in rabbits, in fifteen to twenty-five minutes strong tetanus was produced, usually ending in death. The same dose caused strong excitation in guinea-pigs. In frogs thebain contracted the pupil, then enlarged it, and after one to two hours contracted it considerably. It increased the frequency of the heart-beats.

Müller used the muriate of thebain in watery solution on frogs, pigeons, rabbits, and dogs. In a medium-sized dog, one tenth of a gramme under the skin was not deadly, but it became so after a period of seventeen minutes when injected into the jugular vein. The subcutaneous injection of .005 of a gramme subcutaneously in rabbits had no effect, but when received into the jugular, tetanus ensued but not death. Doses varying from one tenth of a gramme to two grammes, subcutaneously, produced death in three experiments on rabbits in twenty-one, eight, and six minutes. Four hundredths of a gramme of thebain produced in a pigeon tetanic cramps at the end of six minutes, whilst five hundredths and one tenth of a gramme produced death in different pigeons at the end of four, seven, and eleven minutes. Müller concludes that, other things being equal, pigeons have a greater resistance to the poison than rabbits. He saw very small quantities of it produce tetanus in frogs, and stand-still of heart. When excised frogs' hearts are placed in a weak solution of thebain and in distilled water, the beats of the hearts in the thebain solution decrease in number more rapidly, and cease earlier. Müller infers that morphia and thebain are not antagonistic in action. Crum Brown, and Fraser saw twelve thousandths of a gramme of thebain, dissolved in very dilute hydrochloric acid and introduced subcutaneously, kill a rabbit in forty-four minutes, the symptoms previous to death being absence of a desire to move, contractions of the muscles about the spine, and opisthotonos; twenty-four hundredths of a gramme in the same form, when given by the stomach, caused tetanus and death in nineteen minutes. Rigor mortis and acid reaction of the muscle appeared, and the sciatic nerves were irritable fifteen minutes after death. Harley has seen a dog die when two grains were used hypodermically, and mice succumb from the use of one half to one twentieth of a grain. Mitchell[1] found that a grain of paramorphia (Powers and Weightmann's article), partially dissolved, caused death in a pigeon, in two minutes, attended with tetanus, and that one third of a grain dissolved in thirty minims of acidulated water produced death, accompanied by vomiting and tetanus, in one minute and a half. Rabuteau[2] injected subcutaneously, in a dog, five centigrammes of thebain dissolved by a drop of muriatic acid, and the only symptom was stamping on the ground with the feet. In another dog, fifteen to twenty centigrammes dissolved in five cubic centimetres of water, given in the same way, caused symptoms similar to those by strychnia, followed by death. The pupils were slightly contracted. Rabuteau also saw thebain in small doses cause convulsions and death in frogs. He has taken, at one time five centigrammes, and at another time ten centigrammes of thebain, dissolved in hydrochloric acid, with subsequent ingestion of a hundred grammes of water. After the dose of ten centigrammes, the only symptom was some cerebral trouble, such as ebriety without headache; there was no action the pupil, pulse, appetite, or urinary secretion.

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[1] Husemann, Die Pflanzenstoffe.

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[1] American Journal of the Medical Sciences, January, 1870.

[2] Journal de l'Anatomie et de la Physiologie, No. 3, 1872.

Ozanam[1] states that thebain therapeutically agitates and even tet izes, with slight predisposition to sleeplessness; it excites tetanus prin pally in the upper limbs (a fact noticed by Orfila in a dog), suggesti that it may be beneficial in paralysis of those parts. Three to six cen grammes in a paraplegic patient caused so much general uneasiness a excitation, especially of the upper extremities, that the remedy was d continued. Schroff thinks that therapeutically thebain is worthle Reissner saw no narcotic symptoms from it. The observations of Eul berg coincide with those of Ozanam that it acts especially on the cervi dorsal part of the spine. He found that the subcutaneous use of t muriate of thebain in doses of twelve thousandths to four hundredths a gramme, by several patients, increased the temperature and the nu ber of pulsations and respirations with no symptoms of intoxication. a few cases wide dilatation of the pupil was noticed. The drug h neither hypnotic nor analgesic effect, nor action on diarrhœa. Rabute by the method of Moreau, found that thebain does not prevent exosmo He concludes that thebain is convulsivant and toxicant, not soporific, b increases the action of chloroform and is analgesic.

Having given a general *résumé* of the knowledge on this subject, I w relate my own experiences. All my experiments were made with Merc thebain. One cubic centimetre of the solution equaled one hundredth a gramme of the poison dissolved by hydrochloric acid, the solution b ing absolutely neutral. As it will be inconvenient to present a compl tabular statement of experiments, I will give only enough to illustr my statements.

GENERAL ACTION.

Experiment I. — Frog at 1.23 P. M. received .01 gramme of theb subcutaneously. At first frog hops away, then sits still; pupil contract respiration less frequent. 1.29 P. M. Tetanus excited by touch; medu severed, but tetanus persists till death at 2.10 P. M.; heart beats eighte per minute.

Experiment II. — Frog at 9.32 A. M. received .00075 gramme of t bain subcutaneously. At first hops away, then remains quiet. 9. A. M. Pupils become smaller. 10.56 A. M. Tetanus, which contin during the afternoon; at length fully recovered.

Experiment III. — A pigeon of moderate size received under the s of the thigh .01 gramme of thebain at 2.45 P. M. At first the bird fl about the laboratory, then showed signs of excitation. 2.52 P. M. F from his perch in a tetanic state, which continued at frequent interv till 2.58 P. M., when death ensued. When the chest was opened, t heart was not beating.

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[1] G. B. Wood's Therapeutics.

From the above experiments it is seen that thebain is a tetanizing agent, even in as small doses as .00075 of a gramme; that the seat of the convulsions is not cerebral; that pigeons do not have a special immunity against it, as was demonstrated by Mitchell[1] in the case of morphia.

ACTION ON THE NERVOUS AND MUSCULAR SYSTEMS.

In all cases of poisoning by thebain the functions of the sensory nerves remain unimpaired till death, as the convulsions are always excited by touch up to that period. In studying the action on the sensory nerves I made use of the method described by Von Berold and Bloebaum.[2] In a few words the method is as follows. The reflex contractions of a frog, feebly under the influence of strychnia, afforded an index of sensory excitation, as used by Pflüger.[3] The main arteries of the hind legs were previously tied, and these extremities so severed that their only connection with the body was by the sciatic nerves. One nerve was covered with cotton saturated with two and a half per cent. solution of phosphate of soda, and to the other a two and a half per cent. solution of muriate of thebain was applied in the same manner. Two watch-glasses were the sources from which the cotton received sufficient solution to be always thoroughly saturated. By means of a support and a rubber ring four pairs of platinum electrodes were adjusted in such a way that by means of commutators the central or the peripheral parts of the nerves, *i. e.*, the parts above and below the points of application of the drugs could be irritated separately at will. In all details the method as fully described in places referred to was followed; the results of this method can be judged of only in a general way, as the physical laws of the osmosis of the poisons are not made out as regards the nerves.

S. C. means the central end and S. P. the peripheral end of the nerve soaking in the soda solution. T. C. means the central end and T. P. the peripheral end of the nerve saturated with the thebain solution. The numbers under these letters denote the distance between the primary and secondary coils at which the central or the peripheral part of the nerve is sufficiently irritated to respond by a reflex contraction.

Experiment I.

Time.	S. C.	S. P.	T. C.	T. P.
A. M. 11 5	27	27	25	21
11 10	28	28	20	27
11 30	24	28	22	20
11 40	25	24	13	15
P. M. 1 35	15	10.	12	12
2 12	17	11	11	11

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[1] American Journal of the Medical Sciences, January, 1870. Opium and its Derivative Alkaloids.

[2] Von Berold, Untersuch aus dem physiologischen Laboratorium in Würzburg, erstes Bleft, page 21.

[3] Untersuch aus dem physiologischen Laboratorium zu Bonn.

From the figures in the above table it will be seen that the nerve to which thebain was applied was in general less irritable than that treated with phosphate of soda, but, owing to the irregularities shown in the last two columns, it would be unsafe to attribute this diminished irritability to a specific action of the drug upon the sensory nerve trunks. I have also made use of the beautiful method of Brown-Sèquard[1] by cutting off the action of the poison on the lower segment of the spine and sending it to the peripheral terminations of the nerves going to this segment.

Experiment II. — Frog has cord cut at origin of nerves of anterior extremities and the spinal branches of the aorta severed. Then .0025 of a gramme of thebain was injected under the skin of the lower jaw at 10.45 A. M. At 10.52 A. M., tetanus of the anterior extremities occurred; posterior extremities are withdrawn when pinched. 11.22 A. M. No tetanus of posterior extremities, although anterior extremities are tetanized.

In the following experiment the poison is cut off from the peripheral ends of the nerves of the posterior extremities, but is allowed to go to the spinal cord.

Experiment III. — Frog at 10.28 A. M. had aorta tied above its bifurcation, and .0025 of a gramme of thebain injected under the skin of the lower jaw. 10.31 A. M. Tetanus in all extremities; no distinguishable preference shown.

The following experiment shows the local action of thebain when applied to the spinal cord.

Experiment IV. — Frog has cord cut at the origin of the brachial plexus, and spinal arteries of aorta severed; .0025 of a gramme of thebain was gently injected into the spinal canal of the lower segment, when tetanus ensued, lasting a minute and a half, after which all reflex action in posterior extremities was lost.

The action of the poison on the peripheral end of the sciatic nerve on one side can also be studied by the method of Bernard, as is shown in the following experiment.

Experiment V. — Frog has right iliac artery and vein tied. At 9.7 A. M. he received .015 of a gramme of thebain. 9.11 A. M. Tetanus. 9.12 A. M. Again .015 of a gramme injected; pupil contracted. 10.4 A. M. No sign of life; sciatic nerve on sound side responds at fifty centimetres of Dubois's coil, sciatic nerve on poisoned side responds at forty-five centimetres; no reflex action on irritating either central end of the sciatics; thrusting an instrument down the spine elicits a few very slight twitches in the femoral muscles.

It is evident from the above experiments that the action of the poison on the sensory and motor nerves is nothing at all. Now the question arises, Where is the seat of the tetanus? It has already been proved that it is non-cerebral. As for every reflex action we must have a sensory nerve, a ganglion, a motor nerve, and a muscle, the seat of this tetanus must be in either one or more of the above elements. The method of Brown-Séquard shows that the action of the poison on the sensory termination will not produce tetanus, and Experiment V. proves that the excitability of the motor nerves certainly is not exaggerated by it; so that it is necessary to conclude that the action must be either in the ganglion or the muscles. But there is no action on the muscles, for as division of the sciatic stops convulsive action in that extremity, and repeated observations of muscle curve gave me wholly negative results. The action of the muscle was studied by means of Pflüger's myograph. I first severed the medulla, destroyed the spinal cord, and took a curve of the gastrocnemius indirectly and directly in situ. Then the frog was poisoned by subcutaneous injection of thebain, and curves of same muscle taken at different periods for an hour or two. All curves were registered on Ludwig's registering apparatus.

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[1] Thèse pour le Doctorat en Médecine par F. W. Bonnefin.

The following form will express my conclusions as to the action of thebain on the nervous system: —

1. Thebain is a spinal convulsivant.
2. It has no action either on the sensory nerves, the striated muscles, or the motor nerves.
3. Like strychnia, it tetanizes by excitation of the spinal ganglia.

ACTION ON THE CIRCULATION.

The experiments on the circulation were twenty-six in number, and were made on rabbits. The pulse and pressure were noted by Ludwig's mercurial manometer on a continuous roll of paper, whose rapidity of movement was noted by an electro-magnet in connection with a pendulum swinging seconds. By a special contrivance the beginning and end of the injection were noted on the paper. A branch of the jugular or the jugular itself furnished the means for the introduction of the poison, which was always injected towards the heart, no air being allowed to enter. Artificial respiration, similar to the normal, was kept up by an apparatus on the principle of Sprengel's blower, the current being broken at regular intervals by a revolving stop-cock. Curare was used to prevent the effect of the tetanus on the circulation. The carotid artery was used for manometrical observations. The pressure of the blood is given in millimetres of mercury, and the pulsations for periods of thirty seconds.

Experiment I. — Rabbit, curarized.

Time.	Pulse.	Pressure.
	134	96
	Thebain, .005 gramme.	
P. M. 1 20	142	134
1 20 30	138	126
1 21	140	118
1 22	135	144
1 30	118	140
1 48	120	100
2 10 30	108	98
	Thebain, .005 gramme.	
2 11 15	107	74–108
2 11 45	35	72
2 12 15	50	92
2 12 45	85	122
2 13 15	91	122
2 40 45	83	84

Experiment II. — Rabbit, curarized.

Time.	Pulse.	Pressure.
	147	90
	Thebain, .0025 gramme.	
A. M. 9 1	146	86–106
9 1 30	139	104
9 2	150	100
9 3 30	143	112
9 5	148	112
9 7 30	139	114
9 12 30	125	106
9 18	121	94
9 24 30	127	118
10 19 30	99	94
	Thebain, .005 gramme.	
10 19 45	97	90–118
10 20 15	35	148
10 21 15	64	162
10 21 45	77	162

Experiment III. — Rabbit, curarized.

Time.	Pulse.	Pressure.
	98	78
	Thebain, .0025 gramme.	
P. M. 12 30 30	104	78
12 31	135	105
12 31 30	154	126
12 32	111	110
12 32 30	104	112
12 33 30	115	129
12 34 30	83	89
12 38 15	104	96
12 41	94	80
	Thebain, .0025 gramme.	
12 41 45	113	105
12 42 15	118	138
12 43 45	99	132
12 52 45	96	72
12 53	Thebain, .0025 gramme.	Rabbit dead.

It will be seen by the above experiments that thebain increases the blood-pressure and pulse, there being in some cases a temporary fall of pressure for a few seconds, immediately after the injection, probably due to contact of a foreign substance. If, now, the heart and vascular system with nerves intact give such a result, the next question will be what nervous apparatus is involved in their production. Recent researches in physiology have demonstrated that the circulation is influenced by at least four different nervous apparatuses.

1. Ganglia imbedded in the heart, which cause the rhythmical contractions of the heart, called excito-motor ganglia.

2. Nerves in the cardiac branch of the pneumogastrics which arise from a reflex centre in the medulla and end in the cardio-inhibitory ganglia situated in the heart; their action is to slow the heart.

3. The accelerator nerves, or excito-cardio-motor apparatus, which increase the heart-beat. These nerves are not in constant action.

4. The vaso-motor centre (recently located by Owsjannikow and Dittmar) whose nerves, running to the muscular fibres situated in the vascular walls, regulate the calibre of the vessels, and thus increase or diminish the pressure.

Now the frequency of the pulse can be increased by increase of temperature through direct action of thebain on the excito-motor ganglia located in the heart, through irritation of the accelerator nerves, and through paralysis of the pneumogastrics. The increase of the pulse by the increased pressure is still *sub judice*. The temperature during the experiments was falling instead of rising, which excludes the first of the above-mentioned possibilities.

ACTION OF THEBAIN ON CARDIO-INHIBITORY APPARATUS.

There are several methods of studying this action. One is to poison he animal, and to sever the pneumogastrics when it is completely under he influence of the poison; or to sever the vagi first, then poison, and ompare the effects with those obtained with the vagi intact; or to find ut the irritability of the nerve by Dubois's coil, then to poison, and test ritability at different periods, or to paralyze the vagi by atropin or icotin. I have made use of some of the above methods.

xperiment IV. — Rabbit; vagi cut; artificial respiration; curare.

Time.	Pulse.	Pressure.
	130	154
	Thebain, .0025 gramme.	
A. M. 11 30	135	
11 30 30	[illegible]	

Experiment V. — Rabbit; vagi cut; depressor nerve prepared; curare.

Time.	Pulse.	Pressure.
	166	85
	Thebain, .0025 gramme.	
P. M. 1 20	156	76
1 20 30	205	87
	Vagus irritated.	
1 23	158	64
1 26 30	190	70
1 29	Depressor irritated.	
1 29 30	198	40
1 30	Vagus still inhibits.	

Experiment VI. — Rabbit; curare; nicotin; vagi do not respond moderate currents.

Time.	Pulse.	Pressure.
	148	102
	Thebain, .0025 gramme.	
P. M. 2 40 30	161	108
2 41	161	122
2 41 30	159	116
2 42	155	108
2 49	133	90
3 1	134	90

Experiment VII. — Rabbit; curare; atropin; vagi paralyzed, as test by strong currents.

Time.	Pulse.	Pressure.
	175	160
	Thebain, .005 gramme.	
P. M. 1 40	186	172
1 40 30	162	176
1 41	153	178
1 54	152	158

It is evident from the above results, when compared with those where the pneumogastrics are intact, that thebain has no action on the cardio-inhibitory ganglia.

ACTION OF THEBAIN ON THE HEART.

To study the action on the heart, I divided the spinal cord between the atlas and the occiput, thus removing the influence of the vaso-motor centre and the accelerator nerves. In addition, the sympathetic, pneumogastric, and depressor nerves were divided. Then the blood-pressure, which depends on the strength and frequency of the heart-beat on the one hand, and on the other on the tonus of the vascular system, was observed.

ment VIII. — Rabbit; curare; cardiac nerves in the neck cut; cut between the atlas and the occiput (verified by post-mortem ination); bleeding checked by bovista.

Time.	Pulse.	Pressure.
	168	36
	Thebain, .0025 gramme.	
M. 11 40	166	36
11 41	174	31
11 41 30	178	34
11 59	108	30

ment IX. — Rabbit; curare; cord cut between the atlas and the ut; hæmorrhage controlled by bovista; all cardiac nerves in the cut.

Time.	Pulse.	Pressure.
	133	32
	Thebain, .0025 gramme.	
	137	34
	122	32
	150	30
	140	32
	98	22

above experiments show that thebain still increases the pulse, the pressure. As the main factor in the regulation of the press- at is the vaso-motor centre, has been removed in the above nents, it is to be concluded that thebain has an excitant action on ntre. The increase of pulse must be due to an excitant action heart itself, that is, on the excito-motor ganglia, since thebain, as above, has no influence on the curve of a striated muscle, and ly, therefore, has little or none on the muscles of the heart.

is connection it is interesting to notice a difference between the of thebain and of strychnia, poisons which in other respects resem- h other closely. Schlesinger[1] has shown that strychnia causes ed rise of blood-pressure, even after section of the cervical cord, ncludes from this and other experiments that there are vaso-motor in the spinal cord. Thebain, unlike strychnia, seems to have no to cause the blood-pressure to rise.

ACTION OF THEBAIN ON THE VASO-MOTOR CENTRE.

well known that the irritation of a sensory nerve causes an exci- of the vaso-motor centre, which is indexed by a rise of pressure. l further confirm the preceding view that the centre is active, the ng experiment was made. Ludwig's gimlet electrodes were d into the atlas and the occipital bone for direct irritation.

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[1] Wiener medicinische Jahrbücher, 1874, i. 1.

Experiment X. — Rabbit ; vagi cut ; curare ; sciatic nerve prepared.

Time.	Pulse.	Pressure.
	144	150
	Thebain, .005 gramme.	
A. M. 10 40	137	186
10 40 30	143	198
10 41	149	194
10 57 45	130	152 [1]
10 58 15	136	174 [2]
11 1 55	137	188
11 4 15	142	114
	Thebain .005 injected.	
11 4 45	129	124 [3]
11 5 15	130	168

Certainly the vaso-motor centre is in no way paralyzed after the injection of thebain. As indirect irritation always produces a rise of pressure, the sensory nerves and the conductors of their impressions up th cord are not paralyzed. Experiment V. shows that the reflex relati existing between the vaso-motor centre and the depressor nerve is in n way affected.

The following *résumé* will express our results: —

1. Thebain is a tetanoid agent, and pigeons have no special immuni against it.
2. The tetanus is not cerebral, but spinal, in origin.
3. The motor and sensory nerves and the striated muscles are n affected by it.
4. It increases the pulse and blood-pressure by an action on the va motor centre and the heart itself.
5. The reflex action of the depressor nerve is in no way interfe with.

The above experiments were made in the physiological laboratory Prof. H. P. Bowditch, at the Harvard Medical School. I wish here express my many obligations to him in their pursuit.

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RECENT PROGRESS IN THE TREATMENT OF THROAT DISEASES.[4]

BY F. I. KNIGHT, M. D

Anomalous Action of the Epiglottis. — In a case of paralysis of the left recurrent nerve from pleuritic effusion (in a case of phthisis), the following anomaly in the movement of the epiglottis was seen. It (the epiglottis) stood farther back on the left than on the right side. On phonation, it made a remarkable movement towards the right, so strong that it stood directly over the right sinus pyriformis. Schrötter says if this were simply a lower position of one side of the epiglottis, it could be explained by a paralysis of one aryepiglottic muscle; but that the energetic movement mentioned above must be due to a paralysis of those fibres of the genio-glossus muscle which extend from the tongue to the anterior surface of the epiglottis. The same must be true also of those fibres of the stylo-pharyngeus of the left side which, through the pharyngo-epiglottic ligament, run to the epiglottis. In this connection it is to be considered that the genio-glossus muscle is innervated from the hypoglossal, and the stylo-pharyngeal from the glosso-pharyngeal nerve. So we must conclude that besides the inferior laryngeal, some fibres of these last-named nerves must have been paralyzed also; only *some* fibres, however, as both the movement of the tongue and deglutition were unaffected. A little later another peculiarity appeared in this patient. When the epiglottis after phonation had returned to a state of rest, there followed a spasmodic movement of the same towards the left; so it appeared that the paralysis of the nerve-fibres on this side, as mentioned above, was not complete.

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[1] Vaso-motor centre irritated directly.

[2] Vaso-motor centre irritated indirectly, through a sensory nerve, for three seconds.

[3] Vaso-motor centre directly irritated for eleven seconds.

[4] Concluded from page 384.

Another case of similar anomalous movement of the epiglottis is given. This was in a patient with chronic naso-laryngo-tracheal catarrh. During quiet respiration the epiglottis stood in normal position. As soon, however, as a vocal sound was made, the left side of the epiglottis sank backwards, and the right raised itself up, so that the view of the left vallecula became better, and that of the right was diminished. The more loudly the patient spoke, and especially when he pronounced *i* (English *e*), the more marked did this movement become, which in fact consisted of a twisting of the epiglottis on its long axis.

Chorea Laryngis. — Schrötter gives a case of this rare affection of the larynx, of which he has seen eight cases in all. The affection consists in a spasmodic, resonant expiration, which often shows a certain rhythm, over which the patient has little or no control. The patient whose case is here given in detail was a girl, eleven years old, who had had the trouble six months. The attacks occurred every few minutes, but sometimes ceased for a quarter of an hour, and they always ceased entirely during sleep. Laryngoscopic examination showed only quite an inconsiderable catarrh of the larynx and trachea. The cause was considered to be excessive hyperæsthesia. The patients were all young and anæmic; hence iron as well as quinine and cold baths were employed. All the cases were cured in a few weeks, electricity being used in addition in two cases.

Recurrence of Tracheal Tumor. — There has been a recurrence of the growth in the well-known case which Schrötter treated by injection of sesquichloride of iron; the patient has put off a repetition of the operation till he has more trouble from it.

Dilatation of Stricture of the Bronchi. — A man appeared at Schrötter's clinic with stridulous breathing. The larynx and whole length of the trachea were seen to be free from obstruction. The respiratory murmur was found on auscultation to be weak, and weaker on the left side, behind, than on the right; and there were heard also, here and there, some fine, moist râles. But nothing was found sufficient to account for the severe dyspnœa, and as no sign of heart disease was discerned, Schrötter concluded that there was stricture of the primary bronchi. The patient had had syphilis, but had undergone all kinds of treatment without benefit. Schrötter decided to undertake the dilatation of the suspected strictures by means of bougies. For this purpose he had the instrument which he had used before for dilating the trachea (one capable of being lengthened out after being introduced into the larynx) modified so that it could be introduced into the right or left primary bronchus at will. A little curved piece, which was also capable of being turned in any direction, was added to the end of the outer tube. After reaching the bifurcation the inner rod could be forced into the right or left primary bronchus, according as the concavity of this little piece was directed to the right or left. On the end of the inner rod bulbs of different sizes could be fastened. After three weeks' training, on November 21, 1872, Schrötter tried this instrument with a bulb one sixth of an inch thick, and had no doubt but that it entered the right primary bronchus. The next day he passed it into the left, but with more difficulty. This was repeated daily, without pain. At the end of a week the patient voluntarily stated that he breathed more easily.

December 3d, a thicker extremity was used. After the introduction, tough, hard clumps of mucus were coughed up.

December 5th, the patient reported himself as feeling better, and had been able that morning to take a long walk, which had been quite impossible before. The respiratory murmur seemed somewhat louder.

December 9th, signs of pleurisy appeared, which resulted in effusion. He went home to be with friends, and two months afterwards Schrötter heard of his death. The pleurisy could not be attributed to treatment. There was no autopsy.

Bronchocele. — There were one hundred and eighteen cases of this affection. Only three were cystic. The nationality of the patients was so various as not to be worth the trouble to publish. In twenty-six there was stenosis of the trachea; in two, paralysis of a vocal cord. Schrötter pursues the treatment mentioned in his earlier report. Iod-glycerin inunction usually led to a successful result. In only a few cases was iodide of potassium used internally at the same time. The injection of tincture of iodine was tried in nine cases where the iodglycerin externally did not act rapidly enough, but with little success, except in two cases, in which the compression of the trachea was almost entirely relieved.

Bronchotomy. — The windpipe was opened in twenty-six cases; laryngotomy was performed in sixteen cases (twice by cutting only the cricothyroid ligament, fourteen times the cricoid cartilage also); tracheotomy in five cases (above the thyroid gland four times, below the thyroid gland once); laryngo-tracheotomy in five cases. Schrötter says that where there was reason to suspect that the disease extended low down in the larynx, he usually did tracheotomy, and would always do so in such cases in the future, in order that the irritation might be as far as possible from the disease, those cases being excepted in which a purulent collection in the larynx was suspected. The diseases which led to the operation of opening the windpipe were as follows: in fourteen cases perichondritis (eight syphilitic, four tubercular, two typhoid); in five, carcinoma of the larynx and trachea; in two, carcinoma of the thyroid gland; in one, croup; in one, diphtheria; in one, aneurism; in one, foreign body; and in one, cicatrices in the larynx. *Local anæsthesia only* was employed in all these cases, and Schrötter says he cannot recommend this procedure too strongly. In case the operation was not considerably protracted by unusual accidents, it was entirely painless. Local anæsthesia had no ill-effect on the healing. In one case there was a separation of the mucous membrane from the trachea, so that the canula did not enter it, but only the artificially formed blind sack.

In the attempts to dilate strictures of the larynx, it was found that the fenestra in the upper wall of the outer canula was situated three or four lines too far back in all the cases, so that it did not correspond to the glottis. This circumstance should be remembered with reference to easy phonation.

Chronic Nasal Catarrh. — For cauterizing the swollen mucous membranes and ulcerations, Schrötter uses anteriorly the following instrument: A silver staff about seven inches long and an eighth to a twelfth of an inch thick is provided with a groove at its anterior part, in which nitrate of silver can be fused to any extent; this fits into another silver tube which has a slit on one side. The instrument is so introduced into the nostril that the nitrate of silver is covered by the outer tube. The staff is now turned by its handle, and the nitrate of silver comes round to the slit in the outer tube, and into contact with the affected part. If one will take the trouble to measure the distance of the diseased surfaces, cauterization of very limited areas can be effected with much nicety. This instrument, with one for cauterizing the posterior nares, described in a previous report, makes it possible to cauterize all parts of the nose. Schrötter never uses uvula-snares or palate-hooks, either in examination or in operation.

Nasal Polypi. — Schrötter cauterizes after operation, and insists on rhinoscopic examinations as the only means of knowing if the operation has been thorough; he says in regard to the common idea of frequent recurrence, that the large polypi are removed, and the small ones, left behind, have a chance to grow, and recurrence is then said to have taken place.

Chronic Pharyngitis. — Schrötter approves of the destruction of enlarged follicles either by galvano-caustic or by caustic potash.

Malformation. — An unique case. A woman, thirty-seven years old, who presented herself with disease of the heart and catarrh of the larynx, was accidentally examined with the rhinoscope, and it was noticed that the nasal septum was split at about its upper third at a tolerably acute angle, and so formed the opening into a cavity covered with smooth, dry mucous membrane, which extended to the base of the skull; the opening was so large that the end of the index finger could easily go into it. The patient had experienced a severe fall, when fourteen years of age, and was for a long time unconscious; so it might have been thought that this anomaly was due to injury. But Schrötter considered it to be a malformation at once, on account of its symmetry and the depth of the cavity. This opinion was confirmed by some observations on young fœtuses by Dr. Langer, who will communicate the results of his investigations in full.

THE SOURCES OF AN ADDITIONAL WATER-SUPPLY FOR BOSTON.[1]

Last summer, while the city council of Boston was discussing the question of an additional water-supply, an order was passed requesting the mayor to appoint three physicians to examine and report at an early opportunity upon the comparative desirability, on sanitary grounds, of the Sudbury, Mystic, Shawshine, and Charles rivers. The mayor accordingly appointed Drs. Charles W. Swan, Edward S. Wood, and H. P. Bowditch as members of the medical commission. Their report, which makes a pamphlet of something more than one hundred pages, was made and submitted to the city council near the end of the year 1874. The results of their investigations were very favorably reviewed in the subsequent debates upon the subject in the common council, and it is but just to say that they threw much light upon a question of great perplexity, and had an important influence upon the settlement of the matter.

The commission has done an excellent service, not only to the city of Boston, but to a much wider circle of cities and towns, in awakening the community to the vital importance of obtaining pure water for drinking purposes, and to the only conditions under which pure water can be secured.

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[1] *Report of the Medical Commission upon the Sanitary Qualities of the Sudbury, Mystic, Shawshine, and Charles River Waters.* 1874.

It will be a source of regret to those who examine the report with reference to the immediate question which induced the creation of the commission, that the brief period of time (something like five months) which the circumstances of the case would allow for its investigations was much too short to enable it to arrive at an altogether satisfactory decision upon some of the points under consideration. Entirely conclusive results as to the comparative desirability of the different rivers, so far as the color, taste, and general appearance of the water are concerned, could, it would be supposed, only be obtained by examination of the water of each river at the different seasons of the year, and under the various conditions to which the waters of the different rivers are subjected. But in truth the time at the command of the members of the commission only enabled them to make their investigations on this point in September and November. Now it has been asserted to be a fact of common observation that the Sudbury at this season is exceptionally colored, a claim which might seem to be confirmed by Professor Nichols in his report concerning the condition of various rivers, appended to the Report of the State Board of Health of 1873, in which he says, "The Sudbury River flows through meadow-lands, acquiring thereby in the late summer and fall a yellow, almost brown color." Under these circumstances, whatever the average result from extended investigations, it might naturally be expected that the Sudbury would, from the examination of the commission, take an inferior place in the order of preference in this respect.

Again, in the more important matter of making analyses in order to determine the chemical composition of the different river waters, the commission was unable to collect for examination more than *one* specimen from each of the points on the different rivers selected for the purpose. They did, indeed, avail themselves of the results of the analyses made by Professor Nichols in 1872, but the importance of obtaining results under as many as possible of the changing conditions of the rivers is again apparent.

We should hope also that a longer period for investigation would have led the commission into a consideration of the effect upon the water of the different rivers resulting from the "nature of the soil and configuration of the land" of the respective drainage areas, a subject which is at the outset declared dismissed with the remark that "the four drainage areas under consideration are so far alike that no difference in the river water due to these causes is likely to persist after storage has been effected in the basins provided in all the proposed schemes." But taking into view the injurious effect upon rivers shown by the report to result from indirect drainage or flow of the sewage matter through the soil into the rivers, and the attention bestowed upon the comparative density of the population of the different areas, it would seem that the disposal of the bulk of the population, whether upon close and hard soil or upon loose and gravelly soil, and whether upon a greater or a less slope toward the river-bed, would be an important element for consideration, and that it should hardly e concluded that these conditions are so far the same in the different drainage reas without a very careful and extended investigation. We think, however. at notwithstanding the above remark, this subject does subsequently receive ne attention under other heads of inquiry.

The commission has treated the whole subject under the following divisions: 1st. Nature of the soil and configuration of the lands; 2d. Color, taste, and general appearance of the water; 3d. Sources of pollution, including vegetable substances, sewage, drainage from cemeteries, and manufacturing refuse; 4th Density of the population and its probable increase in the different areas; 5th Chemical composition of the waters; 6th. Opportunities for storage.

Part I. is devoted to a general consideration of these questions, and is to a great extent given to the investigations of eminent medical and scientific authorities into the pollution of water by sewage and other decomposing matter, and the difficulty often experienced in detecting contamination by chemical analysis. Much information of a permanent character is here gathered, though there seems to be occasional confusion of statement and some substantial repetition. As a single instance of the former, from page 18 we should be led to suppose that scarlet fever may be a disease affected by water; on page 46 the contrary is assumed.

Part II., containing a description of the rivers in question, and Part III. which is a comparison and summing up of the results arrived at, testify to hard work by the members of the commission. A large amount of valuable information under each of the divisions of the inquiry is collected and is plainly and concisely set forth.

The commission finds that the natural waters of all the rivers may by proper storage be rendered sufficiently pure for domestic uses, apparently, in fact, as pure as the water which has been received from Lake Cochituate; and that so far as the Shawshine, Charles, and Sudbury are concerned, all considerable sources of pollution may by possible measures be removed, and proper storage basins be built. The announcement of these results tended to allay a great deal of uneasiness which had arisen. At the same time the commission has not failed to enforce the vital necessity of removing all existing sources of impurity upon the river to be selected, and of preventing all other sources of pollution arising.

In seeking to arrive at the comparative desirability of the rivers as sources of water-supply, the commission has prominently arranged under each head of inquiry the order of preference, and finally by a single table declared its absolute preference in the following order:—

I. Shawshine.
II. Charles.
III. Sudbury.
IV. Mystic.

This mode of stating the conclusions in a report to readers many of whom will hardly scan with care the statements in connection with their proper qualifications, but will only seize the prominent conclusion, is perhaps open to some objection. An inferior position in the tabulated order as to color is of but little consequence; in the table as to opportunities for storage, it is of great importance. Yet to the superficial reader, who rushes to the "conclusions," the tables count as of equal importance. The final order, too, does not indicate to the hasty reader that there is a considerable difference in the above order between the first and second rivers, but little between the second and third, and a long interval between the third and fourth, as the commission is careful to explain.

When, in departing from the matters in which the members of the commission from their professional knowledge have peculiar means of judgment, they enter the field of speculation upon the probable increase of population and manufactures in the drainage areas, subjects upon which they lay much stress, and upon the decision of which they to a great extent base their conclusions, they perhaps lay themselves open to criticism by others as well qualified to judge as themselves. It is, of course, easy to reach opposite conclusions by combinations of statistics, and perhaps nothing is truer than the contrary of the old adage that "figures won't lie." It is hardly safe to found important conclusions upon the supposition that the future comparative growth in population of two Massachusetts country districts will be the same in the future as it has been in the past. As densely populated as these districts now are, it is perhaps quite as safe to infer that that region which has grown the fastest in the last score of years will increase the most slowly in the next decade or two. But the growth of such districts now depends, it is well known, upon circumstances temporary and peculiar to each district.

As to the future danger of pollution by manufacturing refuse, the commission makes the Charles preferable to the Sudbury, because, while the drainage area of the Charles shows a percentage of increase in the value of manufactured products from 1845 to 1865 of 310 per cent., that of the Sudbury shows in that interval an increase of 823 per cent. But a comparison of the tables will show that the value of those classes of manufactured products which are the particular sources of pollution (first, second, and third) at the last date at which we have statistics were in the ratio of 1442 in the Sudbury basin to 5202 in the Charles basin; that as a fact the value of those products in the Sudbury, though increasing at the ratio of 597 to 1442 for the whole period from 1845 to 1865, reached the culminating point in 1855, and from 1855 to 1865 *decreased* in the ratio of 3772 to 1442, and that in the basin of the Charles there was, from 1855 to 1865, an increase in the ratio of 3810 to 5202; that, indeed, the entire value of such products in the Sudbury area in 1865 was but $105,300, or less than one seventh of the value of the corresponding products in the basin of the Charles in that year; and that the manufactures in the Sudbury area were chiefly (fourth class) the products of boot and shoe factories (without water power, and not directly upon the river), of straw works, and of saw and grist mills, the refuse of which is comparatively inoffensive. In this class alone was there present an increase of products. Yet because the value of the products of all kinds have increased in a greater ratio from 1845 to 1865 on the Sudbury than on the Charles, the commission concluded that the risk of pollution from manufacturing refuse in future is greater in the Sudbury than in the Charles.

The result of the report was awaited with especial interest as a comparison between the Charles and Sudbury rivers. The commission gives to the Sudbury the preference in chemical purity, opportunities for storage, and present risk of contamination by manufacturing refuse; to the Charles the preference in color, taste, general appearance, and risk of contamination by present and future population, and by future manufacturing refuse, and say that the probability is, therefore, that chemical analysis will turn ultimately in favor of the Charles, leaving to the Sudbury of the future the sole advantage of superior storage facilities. Taking into consideration what has been said, and the further fact that the commission suggests modes by which the direct sewage of the Sudbury towns can be diverted, but says that in the case of some of the Charles River towns the question of diversion of sewage is not easily answered, it may possibly happen that the city council in taking the waters of the Sudbury rather than looking to the Charles acted wisely, even in a sanitary point of view.

We should not omit to make favorable mention of the diagrams which are given in connection with the various tables, and which afford a ready interpretation of the figures. An ingenious process is also described, by which the commission was enabled to estimate and compare the color of the various waters with much greater accuracy than can be secured by the naked eye.

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REMARKABLE ELEVATION OF TEMPERATURE.

The medical world in London has been not a little startled by a communication lately made before the Clinical Society by Mr. Teale, of Scarborough. The facts of the case in question emanate from an authority so reliable, and are based on such careful observations, as to leave little or no room for doubt as to their correctness, while in order to accept them we are forced to abandon in a mist of uncertainty and obscurity many facts in physiology and pathology which have hitherto been considered as well established.

Indeed, the "American case" and its crowbar may be said fairly to pale before the formidable array of data here presented, and for a time at least the palm will have to be transferred to its English sister.

The account of the case given by the *Lancet*[1] is in brief as follows: A young lady was thrown from her horse in the hunting-field early in September last, and sustained a fracture of two of her ribs and some obscure injury to the spine over the sixth dorsal vertebra. The fractured ribs soon united, but shortly afterwards symptoms of inflammation in and about the spinal membranes were developed, and the temperature began to rise and in a few days had reached 106°. A few days later, November 8th, it was 110°; on the 13th it had risen steadily from that point to 122°, and how much higher is not exactly known, as the index of the thermometer was buried in the bulb at the top of the instrument. During this period the pulse kept at about 120°; the patient rapidly emaciated and often appeared to be sinking. Ice-bags to the spine, and mercurial inunctions, were the treatment resorted to. On four different occasions the temperature went above 120°, and during the greater part of November and whole of December remained above 110°. By January 10th the temperature had become normal, and a fortnight later the patient was rapidly convalescing and took out-of-door exercise. Mr. Teale said that no fewer than seven different thermometers had been used, and one which registered 122° was specially provided. The temperature was ordinarily taken in the axilla, but was also taken in the rectum and between the thighs. The records of the case show that the observations were made in the most careful manner, and that there was no possibility of error arising from the use of hot-water bottles or from deception. The urine was passed with difficulty in hot towels and appeared almost a mass of lithates. The menses, which appeared once after the accident, were suppressed until January 20th. When the thermometrical readings were highest, the hands, feet, and forehead were icy cold, and the patient remarked that she felt as if her blood was on fire. If the figures above recorded are to be regarded as representing accurately the internal temperature of the body, our ideas of the thermal limits within which the various organs and tissues can perform their functions must be considerably modified. Though these limits have not been so accurately determined for warm-blooded as for cold-blooded animals, yet it is generally admitted that vital functions cease to be performed at temperatures below those which were reached in this case. Thus Rosenthal found that rabbits exposed to artificial heat died soon after the temperature in the rectum had reached 44° or 45° C. (111.2° or 113° F.). It is stated also on the authority of Kühne that blood loses its power of coagulation at 50° C. (122° F.), since at this temperature both the fibrinogenous and the fibrinoplastic substances lose their specific energy. The temperature at which muscular rigidity is produced by the coagulation of certain albuminoid constituents of muscle-serum seems to be for warm-blooded animals not higher than 49° C. (120.2° F.).

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[1] The Lancet, March 6, 1875.

Either we must assume, therefore, that the thermal limits of vitality of the tissues are liable to considerable variations, according to certain unknown conditions, or we must regard the thermometric records in the above case as representing local and not general temperatures. In favor of this latter view is the above-mentioned icy coldness of the hands, feet, and forehead. On the other hand, unless we adopt the very improbable hypothesis that there was a local production of heat in the skin of the axilla, it is difficult to understand how a thermometer in that region could record 122° F. unless the temperature of the blood had reached at least as high a point.

Whatever may be the true explanation of this extraordinary case, it will undoubtedly lead to the renewed investigation of the conditions which may affect the resistance of animal tissues to high temperatures.

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A RARE CAUSE OF UNCONTROLLABLE VOMITING.

A REMARKABLE case of a stomach twisted upon itself and causing uncontrollable vomiting is reported by Dr. L. Mazzotti, and appears in *L' Union Médicale* of January 19, 1875. A woman fifty years of age entered the hospital at Boulogne, in February last, for a caseous pneumonia of the right lung, with cavities. She had been sick for five years, and for a year past menstruation had been absent. But the most remarkable symptom in her case was uncontrollable vomiting, which had persisted for five months. A sensation of excessive pain and oppression was always present in the epigastrium as soon as she had eaten, while it was absent when she fasted. Upon the ingestion of food, especially that which was solid, the pains were such that the patient would roll upon her bed and cry out until she was relieved by vomiting. This occurred every time that food was taken, and alimentation was limited to a few grammes of milk daily.

The autopsy in establishing the diagnosis showed that the stomach occupied nearly the whole of the sub-umbilical region. The organ was clearly divided into two parts; the upper portion was the left and vertical, the lower the right and horizontal, with a contraction in the middle. The walls of the stomach were turned upon their longitudinal axes by the rotation of the inferior or pyloric upon the cardiac portion, making almost an entire circle, the contracted point being the centre around which the rotation was made. The pylorus was low down and movable, and the epiploön was stretched. The vertical part of the stomach, above the point where the twist was made, was distended with gas, while the inferior part was scarcely visible and its walls were in contact. Some adhesions in the pyloric region united it to the abdominal walls. These were easily broken, and the twist being unwound the organ appeared like an hour-glass-shaped stomach with a central contraction. Removed and inflated, the stomach presented its natural form and showed no traces of the contraction. There was only a slight catarrh of the mucous membrane at the contracted point; all the rest of the organ was normal. The intestines, compressed to a very small volume, were scarcely visible.

This case and another of a similar nature reported by Dr. Iago, under the title of the Hour-Glass Stomach,[1] show the pathological and clinical importance of this form of contraction of the stomach, which authorities mention from an anatomical point of view only. The most recent works on clinical medicine do not allude to it. Whether it is congenital, as Morgagni held, or results from excessive contraction of the transverse muscular fibres, as is generally admitted on the authority of M. Sappey, its pathology ought always to be kept in mind, especially as causing uncontrollable vomiting.

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MEDICAL NOTES.

— Dr. Wm. H. Mixon, of Hope, Ark., reports to the *American Practitioner* the case of a man sixty-eight years of age who suffered from retention of urine. After twenty hours' delay, in which attempts to relieve the distended bladder by the use of the catheter, hot baths, belladonna, and chloroform were unavailing, it was decided to puncture the bladder. No proper canula and trocar for puncture by the rectum being at hand, even had not the enlarged condition of the prostate seemed to preclude this operation, and having only an ordinary catheter and bistoury, Dr. Mixon opened the bladder above the pubes, and inserted a No. 8 female catheter. In five days small quantities of water began to pass by the urethra, but attempts to pass a catheter through it were not successful. Eleven days after the operation the urine resumed its natural course, and four days later the instrument was withdrawn from the hypogastric opening, where it had remained without exciting any irritation. The wound healed readily, and the patient's health at the time of writing the report of his case was perfect.

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[1] L'Union Médicale, 1873.

— J. S. Lombard, M. D., formerly Assistant Professor of Physiology in Harvard University, has recently invented a portable thermo-electric apparatus for medical and physiological investigations. The instrument consists of five parts: the galvanometer, the rheostat, two thermo-piles, a tin kerosene lamp, and a brass stand with a horizontal arm having a clamp at its end. The two thermo-piles consist each of eight pairs of bismuth and an alloy composed of antimony and zinc. This alloy is the result of elaborate researches made some years since by Mr. Moses G. Farmer, of this city. A full description of the instrument, together with illustrations, may be found in the *British Medical Journal*, January 23, 1875.

— At a meeting of La Société de Biologie, reported in the *Mouvement Médical*, M. Liouville presented in his own name and in that of M. Strauss a case of compression of the medulla spinalis, observed in a man fifty-two years of age. The patient was seized at L'Hôtel Dieu, in September, 1874, with paralysis of the lower extremities. The occurrence of the paralysis was very sudden, and a guarded diagnosis was made of hæmorrhage into the spinal marrow and its membranes. The disease pursued the course of a hæmorrhage into the spinal cord. Emaciation rapidly followed, and then death. The diagnosis was erroneous, and there was found to be a compression arising from hydatids of the vertebral canal. The compression, which was situated at the level of the eleventh and twelfth dorsal vertebræ, resulted from a hydatid tumor and a yellow caseous mass. There was a considerable anæmia of the lumbar region and of the cauda equina. At the lower part of the left lung, between the lung and the diaphragm, there was a large tumor filled with hydatids, which had occasioned a degeneration of the bones and ligaments of the spine. This degeneration was principally at the posterior part. The hydatids had suddenly and all at once broken through the cyst, a circumstance which explained the rapid appearance of the symptoms mentioned above.

— Those of our readers who have followed the ether and chloroform discussion in the English journals have doubtless watched with interest the gradual change of opinion which has taken place in that country, during the last few years, in favor of ether as an anæsthetic. In this connection an account of a visit of our fellow-townsman, Dr. Fifield, to the Royal Infirmary at Liverpool will doubtless be of interest. Dr. Fifield, at the request of the surgical staff, demonstrated the American method of giving ether in three different cases. A correspondent of the *British Medical Journal* says, —

"In each case Dr. Fifield gave ether, using no other apparatus than a conical hollow sponge. Complete anæsthesia was produced in each case in from three to four minutes. Addressing the students and those assembled in the theatre, Dr. Fifield said that, although an American by birth, he had been educated in England and in Paris; had no prejudice either for or against chloroform, and had enjoyed ample opportunities of witnessing the use of both chloroform and ether. The latter he had himself given in thousands of cases; had seen it given in the hospitals of New York, Boston, and other towns in his own country, and had never seen or heard of a fatal result. He was greatly surprised on his arrival here to find that English surgeons still adhered to the use of chloroform, which in America was almost proscribed. The great superiority of ether was its perfect safety. The operator commenced and completed his task without the smallest anxiety as to the effect of the anæsthetic; whereas, when chloroform was used, it was impossible, in spite of every precaution, to predict with certainty that the patient, although in comparatively good health, might not, before or after the operation was finished, be found a lifeless corpse. As to the mode of administration, no expensive or complicated apparatus was necessary; nothing, in his opinion, was more suitable than a hollow conical sponge. The ether should be given at once freely; a lavish use of it at first proved a saving of material in the long run. Etherization presents three definitely marked stages: first, that of muscular relaxation; second, tetanic convulsive action; third, complete surgical anæsthesia, indicated by stertor, or what he called the "snoring stage;" and, unless this stage were fully reached, there was risk of partial failure, so far as full insensibility to pain was concerned. We think it probable that the clear and forcible way in which Dr. Fifield has put the matter before the profession here will lead at least to a renewed trial of ether as a substitute for chloroform."

— Professor Lister lately operated successfully at the Edinburgh Royal Infirmary, in a case of goitre affecting both sides of the thyroid body. Before proceeding to remove the tumor, the operator ligatured the superior and inferior thyroid arteries, by which preliminary hæmorrhage was almost entirely prevented.

— We learn from the *Atlanta Medical and Surgical Journal* that the legislature of Georgia has passed a law creating a State Board of Health. The new board is charged with the registration of births, marriages, and deaths, in addition to the general sanitary supervision of the State.

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SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER, THORNDIKE, AND WADSWORTH.]

THE following operations were performed during the week ending Friday, March 26, 1875:—

1. Glandular tumor of neck. 2. Double hare-lip. 3. Hæmorrhoids. 4. Amputation of fingers (three cases). 5. Mammary Abscess. 6. Enucleation of eye. 7. Strabismus. 8. Canthoplasty (two cases). 9. Iridectomy. 10. Chalazion (four cases).

1. *Glandular Tumor of Neck; Excision of Clavicle; Probable Wound of Thoracic Duct.* — A brass-molder, twenty-two years of age, first noticed a swelling in the left side of his neck three months ago. It gradually increased, and was accompanied by severe pain in the left shoulder and impaired use of the muscles of the left hand. He entered the hospital on the 15th inst.

There was a firm, lobulated, slightly movable tumor on the left side o neck. It dipped down behind the clavicle a little, and extended about inches upwards, and inwards nearly or quite to the median line. There one enlarged gland in the axilla. No increase in size of the spleen. white blood corpuscles were increased. The patient had lately lost flesh strength, and was pale and sallow. His previous health and his family histo were good. The tumor was of large size, being four inches in diameter, rapid growth, and with acute symptoms. The diagnosis was probable leuc cythæmia. It was decided to attempt its removal to relieve pain, and also t free the system from a large mass of exaggerated gland tissue, constantly increasing the surplus of white blood corpuscles.

Dr. Cheever made an incision along the posterior border of the sterno-mastoid muscle, and this, with the external jugular vein, was drawn forwards. A cross cut was then made from the middle of the incision, about three inches, to the trapezius. The flaps of skin were reflected, and the tumor exposed. It was found to be entirely solid, lobulated, and pretty firmly fixed. It extended forwards under the sterno-mastoid into the carotid triangles. To reach this portion the clavicular head of the sterno-mastoid was cut away. The edges were gradually loosened by cutting fascia and tearing adhesions, until the upper three fourths of the growth were lifted up and detached, and thus far without large hæmorrhage. The omo-hyoid muscle was now divided, and the dissection pursued in the subclavian triangle. Here a copious venous bleeding occurred from below the clavicle, and in attempting to turn the tumor outwards by dividing a bridle on the inner side, this too proved to contain a large venous trunk, and bled freely. To reach the bleeding points speedily, the tumor was now cut across, two thirds of it removed, and the remainder, about an inch and a half in diameter, left at the bottom of the subclavian triangle. It became evident that the subclavian vein, and a large vessel near the internal jugular, were both wounded. The distended veins, mixed up with a friable glandular growth, gave way repeatedly under the forceps and ligature. At this time occurred a new source of difficulty. A transparent, viscid, coagulable, and colorless fluid ran out from the cut tumor, and from the lower corner of the wound, in quantities as large as an ounce at a time, some six separate times. Together with the dark venous blood, this fluid constantly obscured and filled the bottom of the neck, whenever pressure by the finger or sponges was taken ff. After twice passing an aneurism-needle under the subclavian vein and stening the ligature, and also picking up and tying the punctured sides of the nous trunks, without permanently arresting the bleeding, Dr. Cheever cut down on and cleared the clavicle, sawed it at the junction of the outer and middle ds, and disarticulated it at the sternum. Two thirds of the clavicle being oved, free access was had to the seat of hæmorrhage. The subclavian y was sought and pushed aside, and an aneurism-needle passed between it he vein, first, out towards the shoulder and a ligature tied, and second, to the sterno-clavicular articulation, where the needle and ligatures sur- d the venous trunks at or upon their junction in the left vena innom- The artery was not wounded nor tied. All bleeding now ceased, but sparent fluid still oozed out, moderately. The wound was lightly packed with sponges and ferric alum. The operation was necessarily a protract one, and the patient was largely stimulated during the latter stages. He not vomit, and bore up remarkably well. Removed to bed, he took stimul and nourishment freely. No hæmorrhage recurred, and the transparent fl did not soak through the sponges. The patient gradually failed, from sho and exhaustion, and died Sunday morning, thirty-six hours after the op ation.

No autopsy was made, but an examination of the wound showed the li tures to be on the subclavian vein, at the outer part, and also at the juncti of the internal jugular and subclavian. The remains of the tumor extend two inches below the clavicle, but were enucleated without piercing the pleu This fragment of tumor had incorporated into itself several venous trunks, sinuses, caught and entangled in the gradual agglomeration of glands. Th was no opening into the pleura, no sac running down into the thorax or axil no cyst in any direction. The source of the transparent effusion could not traced. There would, however, seem to be but little doubt that this fluid lymph, from a large branch of the lymphatics in the tumor, or more proba from the thoracic duct, where it arches over to join the left subclavian ve In contact with, if not surrounded by, the glandular enlargement, its thin transparent walls were readily wounded in trying to remove the lower part the tumor. No other source for the clear fluid could be found; there bei neither cyst, hydrocele of the neck, nor pleural effusion to account for it. fluid, under the microscope, exhibited no cells, save a few stray blood corp cles. The patient, having fasted for twelve hours before the operation, wo have but little of the milky emulsion of chyle in the duct. And the flu answers Dalton's definition of lymph. "It is a colorless, or slightly yellowi transparent fluid; . . . . containing water, saline matters, and a small quanti of fibrin and albumen." "During the intervals of digestion the lacteals [a thoracic duct (?)] contain a colorless and transparent lymph."

The fluid poured out in this wound coagulated after contact with the air, a firm jelly, just as blood coagulates. This, no doubt, was due to its fibri Its large quantity pointed to a considerable duct as its source, though it mu be borne in mind that the whole lymphatic system of the neck was vast increased and enlarged, and secreting great quantities of lymph, probably. is the vitiation of the blood-current with this excess of lymph, or with whi cells, that Virchow adduces as an argument for the removal of glandular leuc cythæmic tumors.

Very probably the waste of nutritive plasma by this leakage of lymph the wound hastened the exhaustion of the patient, and, if due to a wound the thoracic duct, would have precluded his recovery.

The tumor, after being properly hardened for sections, will be submitted the microscope. D. W. C.

2. *Double Hare-Lip.* — The patient was four months old. The fissures we complete on both sides; extending through lip, alveolar process, and hard a soft palate. The intermaxillary bones were very prominent. The child w fat and healthy. Dr. Thorndike closed both fissures in the lip. The margi of the skin covering the intermaxillary bones were denuded, and the bone

themselves forced back into place on a line with the alveolar process. Then a strip was cut from each margin of the cleft, and left attached below. The lip having been freely dissected up, the strips were united to each other below the intermaxillary portion, and also to the skin covering that part. Both clefts were in this way closed completely. There was no notch in the upper lip, and there was no strain upon the flaps. Wire and silk sutures were used in closing the wound, and the whole covered with adhesive straps.

5. *Enucleation of Globe.* — The patient, a woman, had had chronic inflammation of the conjunctiva of the left eye for eight years. The conjunctiva was greatly shrunken; the cornea opaque; the upper lid so much incurved that all its lashes were turned directly against the eye. The lashes had been removed from the lower lid a year ago, in Baltimore. The constant rubbing of the lashes on the cornea kept up such an irritability of the other eye as to make it also of little use. The degree of contraction of conjunctiva and lids was such that the result of an operation to relieve the entropion would have been more than doubtful. If the eye alone were removed, no artificial eye could have been worn, and the lashes would still have maintained the inflammation of the conjunctiva.

Dr. Wadsworth said he thought it best, therefore, to remove conjunctiva as well as eye, and thus effect a permanent closure of the lids. The conjunctivæ was dissected away as thoroughly as possible, and the globe enucleated.

GEO. W. GAY, M. D.

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LETTER FROM VIENNA.[1]

BEFORE I came to Vienna I thought I had my feet well under me on the question of pulmonary affections, and particularly in regard to catarrhal pneumonia; but I suddenly find my self-complacency is scattered to the winds, and I am all adrift once more. The Vienna school swear that there is no such thing as catarrhal pneumonia. I say the "Vienna school," for I notice that the doctors who make a specialty of children's diseases still retain the term catarrhal pneumonia, and apparently believe in it. Some of the others, however, say that the so-called caseous products of catarrhal pneumonia are really disintegrating tuberculous centres; this is really coming back to the old theory taught by Flint. This theory is advocated by some of the teachers here with considerable warmth, but it lacks, so far as I can judge, the support of an able, recognized authority. They declare that all phthisis is tuberculous, though I believe they disavow any belief in any characteristic cellular structure of the tubercle. They make three divisions of the subject, according to the gross appearances of the lungs, but the tubercle in its various stages of development and degeneration is the corner-stone of the whole. I must say that there is something about the theories of Niemeyer which seems too practical and too plausible to allow of its being supplanted by any such ideas as the above. Of course I do not do full justice in this letter to the Vienna theory, but I think I have faithfully given the drift of it.

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[1] Extract from a private letter, not intended for publication.

Professor Zeissl has also turned me upside down. You know that "ma seit jeher gesagt hat," that a man with a hard chancre is not self-inoculabl Professor Zeissl has shown us several cases where there were simultaneousl present on the same individual a hard chancre, a papulous eruption, and one more secondary ulcers, which were the result of vaccination from the origin ulcer. These secondary ulcers have all the gross appearances of a soft chancr or of a "zerfallendes geschwür," as he calls it, but they do not become indu rated. Sometimes, in order to get pus from the original hard chancre, he h to rake up the bottom of the chancre and make it suppurate. He says that is easier to produce such an ulcer on a syphilitic person than to produce a ulcer on a well person by application of irritants to the skin. The onl thing which remains is to try the pus from the secondary ulcer, and see if also possesses syphilitic potency, and if it is able to convey syphilis to a we person. I think that Professor Zeissl suffers from a deep melancholy becau the law will not allow him to experiment upon this point.

I suppose you understand the Vienna system of hospital service, and th while it has great advantages it also has some great disadvantages. You kno that when a man is appointed to a ward here he is appointed for the year i and the year out, and that he has everything all to himself. Now this is a very nice for the lucky man, and this manner of appointment as a system mu tend to develop and bring forward prominent men in the profession. Thi must be inevitable, because a man would have to be most extraordinarily dul who could have so much material at his command without learning somethin therefrom. And, on the other hand, a man of only ordinary abilities and a average capacity for observing ought, under such circumstances, to stand ahea of his less fortunately situated colleagues.

Oppolzer, Skoda, Türck, Hebra, Billroth, Spaeth, Braun are a noble list o names, and yet I estimate some of the men who are here to-day as more favore by opportunity than by brains or genius. Braun has an immense clinic an great reputation, but his reputation is not so great as that of Spiegelberg, wh has in comparison a very inferior clinic, in Breslau.

This system is of wonderful advantage, therefore, to the few, but its gre weakness, or perhaps you might say injustice, lies in its neglect of its ow students. This system makes no provision for succession, and practical ignores all rising talent. The consequence is that when an emergency com and a professor dies or steps out, there is a great excitement over his successo There is no real training-school here, where men can be trained with a dire view to succession, as is the case with our hospitals at home. I have hea one young physician here, whose specialty is thoracic diseases, bitterly compla because the wards where he might study and profit are closed to him. Bam berger, with his immense clinic, will not allow this man to enjoy its benefi The young physician in question is a docent, and has an out-clinic and do what he can there in a small way. Oppolzer was in his day somewhat mo liberal, and allowed Pollitzer and Gruber to use his material for the study the ear. The consequence is that Pollitzer and Gruber have wards of the own now, and are celebrated men, because they were encouraged and give opportunity for study. Most of the young men pick along as well as they a able as docents, and then go off to smaller universities as soon as they can get an appointment.

Here, again, the natural result of the system is inevitable. The young men emigrate, and find a berth where they can. When a professor dies, however, the school finds no man ready for his shoes, but must import somebody or call back one of their own ill-treated students. You know what a time they had last year when the attempt was made to bring Recklinghausen here.

The more I consider the subject, therefore, the more I am convinced of the superiority of the Boston system of hospital service over that of Vienna. The one-man system here may produce more noise in the world, but the tendency of our system is certainly toward a better rank and file of men. Six men at home enjoy in alternation what one man rules here alone. And our training school — the out-patient department — is so ordered and carried on that there can never be any cause for worry about succession.

A certain number of young men are appointed as assistants here, but from the stupidity of some of them I imagine that they have obtained their appointments from other considerations than that of their brains. Some of them, however, are very able young men, and are better teachers than some of the professors, because they are more interested in their work.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending April 3, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: influenza, bronchitis, rheumatism, and pneumonia. Diphtheria is increasing in prevalence. In Lee there were four cases of varioloid.

In the Connecticut Valley, the same diseases prevail as in Berkshire. In many of the towns, acute affections of the digestive organs (diarrhœa, cholera morbus, and bilious disorders) have manifested a sudden prevalence.

In Worcester County: influenza, bronchitis, measles, rheumatism, and pneumonia. Diphtheria is still prevalent, but less so than a week ago. In Douglas, " some cases of varioloid."

In the Northeastern section: pneumonia, bronchitis, scarlatina, and rheumatism. Measles has subsided and scarlatina has increased. In Reading is a single case of small-pox, supposed to have been imported from Canada. In Ashby, measles is epidemic.

In Boston and its suburbs: bronchitis, measles, rheumatism, pneumonia, and scarlatina. Intestinal affections are increasing in prevalence. Typhoid is also on the increase.

On the Cape: bronchitis, influenza, rheumatism, and pneumonia.

Since last week, in the State at large, bronchitis, measles, diphtheria, croup, rheumatism, and pneumonia have diminished in prevalence. Intestinal disorders, influenza, scarlatina, and whooping-cough have increased.

F. W. DRAPER, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MARCH 27, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	605	30
Philadelphia	775,000	357	24
Brooklyn	450,000	199	25
Boston	350,000	170	25
Providence	100,000	28	15
Worcester	50,000	19	20
Lowell	50,000	22	23
Cambridge	44,000	21	25
Fall River	34,200	16	24
Lawrence	33,000	15	24
Springfield	33,000	12	19
Lynn	28,000	7	13
Salem	26,000	10	20

THE AMERICAN MEDICAL ASSOCIATION.

THE twenty-sixth annual session of the American Medical Association will be held in the city of Louisville, Ky., on Tuesday, May 4, 1875, at 11 A. M.

"The delegates shall receive their appointment from permanently organized State medical societies, and such county and district medical societies as are recognized by representation in their respective State societies, and from the medical department of the Army and Navy of the United States."

"Each State, county, and district medical society entitled to representation shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, Territory, county, city, or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the code of ethics of the association."

The following amendments to the plan of organization are to be acted upon: —

By DR. H. B. BAKER, Michigan:—

"The officers of the several sections shall be nominated by the section in and for which said officers are to serve."

By DR. ADAMS JEWETT, Ohio: —

"The permanent members shall consist of all those who have served in the capacity of delegates, and of such other members as shall have received the appointment by unanimous vote, and of all others who, being members in good standing of any State or local medical society entitled to representation in this body, shall, after being vouched for by at least three members, be elected to membership by a vote of three fourths of the delegates in attendance, and shall continue such so long as they remain in good standing in the body of which they were members when elected to membership in this association, and comply with the requirements of its by-laws."

Secretaries of all State medical societies that have adopted the code of ethics are respectfully requested to forward to the Permanent Secretary, WM. B. ATKINSON, M. D., Philadelphia, a complete list of the officers, with their post-office addresses, of those county and district medical societies entitled to representation in their respective bodies.

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HEPATIC ABSCESSES; FATAL PERITONITIS.

CASE OF THE LATE SECRETARY OF THE STATE BOARD OF HEALTH.

BY S. L. ABBOT, M. D.

In order to appreciate fully the significance of all the symptoms in the case of the late lamented Secretary of the State Board of Health, and the questions which arose during their development, it is necessary to go back to his army experience during the late war.

Having left home in the first year of the rebellion as surgeon of the 23d Regiment of Massachusetts Volunteers, Dr. Derby found himself early in 1862 on the coast of North Carolina, at New Berne. At this post and in the vicinity he passed two years, partly in active service in the field, partly as surgeon-in-chief of a large military hospital. As a precaution against the malarial influences by which he was surrounded, he took daily from two to five grains of sulphate of quinine, with the effect, as he believed, of averting all injury from the climate. It is certain that during that period he had no attack of any of the malarial affections so common about him. At the end of two years he was transferred to the scene of active operations in Virginia, under General Grant, and at this time was much exposed, in the responsible position of medical director of an army corps, to intense heat; and finally, after some months' service, was completely broken down and "demoralized," as he expressed it — in a state of complete bodily and mental prostration. This was accompanied by a more or less constant dull pain in the region of the diaphragm. In this condition he applied for a transfer to a more northern station, and received the appointment of urgeon-in-chief of the large military hospital at Augusta, Maine. uring the year that he passed at this place the pain in the region of he diaphragm gradually subsided. During the whole period of his rvice he had no attack of strictly malarial disease.

For some years after the war Dr. Derby's health was excellent. he organization of the State Board of Health gave him an opportunity the kind of work which he particularly enjoyed and which his ny experience had specially qualified him for, and he gladly accepted position of secretary, which he so honorably filled up to the time

of his death. The labors of the office were unceasing and
hausting. As the executive officer of the board he was load
very heavy responsibility, which taxed his bodily and mental
to the utmost, often weighing him down with very grave anxi
cares.

Between three and four years ago, Dr. Derby consulte
account of a gastric difficulty which was giving him not a lit
tude. He told me that it first came on quite suddenly, wit
previous warning. Having eaten a plain but hearty dinner
surprised after an interval of four hours by an attack of vo
which he ejected all the food he had taken, apparently unch
"just as if it had been kept in a tin kettle," to use his own e
words. There were some traces of blood, as he thought, in the
and the idea of a chronic ulcer of the stomach suggested itsel
His stomach, having relieved itself, was easy until he next t
Eating, however, was followed by vomiting again, but soo
before, the food being unchanged. Finally the organ becam
table that it rejected food almost as soon as it was taken.
there was little or no pain. As the gastric irritability increas
came on very frequent and abundant eructation of gas of
peculiar odor, as well as copious ejection of a watery fluid,
larger quantity than the liquids swallowed. There was non
peculiar pain generally accompanying gastric ulcer, and ther
trace of blood to be seen under the microscope in a small sp
brownish fluid thrown up and suspected to be blood; neither c
sarcinæ be detected in the matters vomited. There was sligh
ness of the conjunctivæ, and some tendency to constipation. D
mentioned, as possibly having some connection with his sympt
it had been his habit for years to take a glass of whisky a
before going to bed. The symptoms appeared to indicat
catarrh with almost complete arrest of digestion, probably ow
connected with some obstruction to the functions of the liver.

Of these attacks Dr. Derby had several before his last
prostrating him very much at the time, causing him to lose m
and followed by tardy convalescence. It usually took him at l
weeks to get back to what he considered a fair state of health.
intervals, however, he considered himself in the main as q
although he was obliged to exercise some care in his diet; swe
kinds being particularly obnoxious to him. He also gave u
bitual use of stimulants, as he found them not to agree with hi

For these attacks he was treated at first with small doses of
or podophyllin and saline laxatives, hydrocyanic acid to some e
the irritability of the stomach, and very low diet. At fir
entire abstinence from food was prescribed. After a short i

small quantity of milk could be retained without vomiting; this was gradually increased, and other light articles of diet were added, until the stomach recovered its tone. These attacks, however, told upon his strength a good deal, and it was a matter of common remark among his friends that he was growing old in appearance very fast.

In May, 1873, after a severe and prostrating attack, as above described, Dr. Derby left home for an extensive tour in the West, partly to recruit his health and partly for the purpose of making a sanitary inspection of its great cities. On this journey he visited St. Louis, Cincinnati, St. Paul, Chicago, Cleveland, Buffalo, and other populous places, in each of them examining all the localities likely to be more or less prejudicial to public health. He returned home after several weeks, none the better, but rather the worse. His health subsequently improved, however, and during the month of February, 1874, he made a flying visit to Florida with an invalid relative, going as far as Green Cove Springs, but sleeping only one night in that State. After his return home he was in fair health until the latter part of May.

On the evening of May 21st I received a note from Dr. Derby, begging me to visit him and give him a subcutaneous injection of morphia. I found him suffering from a severe pain passing from one hypochondrium to the other, which had come on soon after eating a breakfast of somewhat indigestible character, had continued all day, and had become almost intolerable. There was no nausea or eructation. Pulse 40. Skin natural. I advised him to defer the use of an opiate, and to take a mercurial cathartic. He selected calomel as a remedy which usually acted kindly with him, and took six grains, which he had found to be a sufficient dose. Sinapisms were applied to the seat of pain. At night, if kept awake, he was advised to take chloral hydrate, fifteen grains, with bromide of potassium, a scruple, and to repeat the dose if necessary.

May 22d. Took in the night two doses of the chloral and bromide without satisfactory effect, and subsequently three doses of sulphate of morphia, one sixth of a grain each. He was now quite free from pain and tenderness at the seat of yesterday's pain. Nausea, headache, and general malaise, which he attributed to the morphia; there had been no movement of the bowels.

The next day he was still suffering from headache, and he had had a poor night. He was much distressed by flatus, the lower part of the abdomen being much distended and tense; no tenderness in any part of the abdomen. No dejection. The wind seemed to be in the small intestines, as there was no marked resonance over the colon. He was recommended to take an enema of six ounces of the compound infusion of senna, as the speediest way of moving the bowels.

From this he got no relief, although the enema was retained several hours. He then took in divided doses a bottle of Pullna water. This operated four or five times during the following night, producing very copious, dark, liquid dejections, giving him entire relief from his abdominal discomfort. At one o'clock in the morning he was seized with a very severe chill, which lasted half an hour and was followed by fever of several hours' duration and subsequent very profuse sweating. At the time of my visit on the 24th he was much exhausted, the conjunctivæ were decidedly yellow, and there was a slight yellowness of the skin.

On the following night the chill and fever were repeated and were very severe. Ten grains of blue pill were prescribed, to be followed by a Rochelle powder in three hours.

On the evening of this day, May 25th, at Dr. Derby's request, Dr. Ware saw him with me in consultation. The most careful examination at this time failed to detect anything abnormal about the abdomen. There was no unusual hardness, fullness, or tenderness anywhere. Dr. Derby was strongly inclined to consider the attack malarial, an opinion not fully accepted by myself, and decidedly rejected by Dr. Ware. It was determined to follow an expectant course of treatment, with low diet.

May 26th. Free evacuations during the night. Pulse 50. Another chill at the same hour of the morning, and equally severe. Dr. Derby reported his temperature during the fever at 105°. At noon, pulse 87; temperature 100.8°. At this time, at his very earnest request, I decided to give him moderate doses of sulphate of quinine at short intervals, and he accordingly took, in divided doses, sixteen grains before seven P. M.

May 27th. Tinnitus aurium came on before midnight. Has slept a little. Headache, which he has had since the second day of his illness, continues, with occasional lancinating pangs from the left to the right temple. Chill at the usual hour. Has had several slight dejections, liquid, of a bright yellow color. Urine highly colored by bile. An eruption of herpes in single papules and occasional patches on the sides of the neck, temples, and wrists, an affection to which Dr. Derby has been more or less subject all his life. If the tinnitus should continue, the dose of quinine to be restricted to two grains, taken at nightfall.

May 28th. Chill as usual. General condition the same. Tongue furry, white, thickened, deeply fissured, pasty. Tinnitus continues. To take but one grain of quinine at night.

May 29th. About the same. Chill in the night. In the evening, after consultation with Dr. F. E. Oliver, it was decided to administer six grains of sulphate of quinine, notwithstanding the tinnitus, which continued, but was mild, and had been so from the first. The pulse for several days had been between 50 and 60, and the temperature was about normal. Very little food was taken, mostly milk.

From one A. M. of the 29th until one P. M. of the 31st, an interval of sixty hours, there was no chill. At the hour last mentioned, there was a recurrence of great severity, and followed by extreme depression Very little food had been taken. By this time the herpes had become a serious annoyance. There were at least a dozen large pustules on the left upper eyelid, completely closing the eye, and several on the lids of the right eye. The patches elsewhere were very large, and those on the arms were supported by a livid base almost as dark as purpura. There was a chain of patches and scattered pustules on the back from the nape to the sacrum, on each side of the vertebral column. The most annoyance was experienced from the eruption on the eyelids, which was accompanied by severe conjunctivitis, while that upon the back made decubitus very uncomfortable.

From the 1st to the 15th of June, inclusive, the chills continued with great regularity, on some occasions occurring twice in twenty-four hours, so that during this period there were twenty of them. They occurred mostly at night, and caused great suffering from the want of sleep. By the 15th, the headache, which had been very severe during the chills, and more or less during the intervals, had disappeared, and the fever following the chill was much shorter. During this period the pulse ranged from 52 to 105, the latter only on one occasion, the average being about 68. The temperature ranged from 98° to 104.5°, the latter only on two occasions, during the period of fever following a chill; the average was 100.9°. The quinine treatment was vigorously pursued, the doses being increased until on June 4th forty grains were taken during twenty-four hours.

June 5th. Consultation with Dr. Samuel Cabot, who failed, on the most careful examination of the abdomen, to detect anything abnormal except a slight increase of hepatic dullness. As very decided cinchonism existed, it was determined to give up the use of quinine, and to administer Fowler's solution instead The use of this remedy was continued in gradually increasing doses until June 10th, — fifty drops having been taken during the previous twenty-four hours without the slightest inconvenience to the patient. At this time there was no tenderness on pressure over the liver or spleen, but the latter could be distinctly felt to be somewhat enlarged. Iodide of potassium was substituted for the arsenic, and given in moderate doses for two days.

June 12th. On consultation with Dr. Cabot, it was decided to give sulphate of quinine, six grains, Dr. Lente's solution, subcutaneously. This was administered at four P. M., and was followed at six by a chill which lasted three hours, and a proportionately long fever and sweating turn. Another chill of equal severity occurred at six o'clock of the following morning.

June 13th. For the first time a slight tenderness was complained of over a very small surface at the edge of the ribs, above the right hypochondrium. Percussion gave resonance at this point, and there was much flatus in the colon. The tenderness was much less after a free evacuation of the bowels.

During the chills much relief was experienced on several occasions by a prolonged warm bath. On one occasion this was continued for an hour at a temperature of 105°. Cold wet cloths were freely applied to the surface during the fever turns.

A fair amount of nourishment was taken, and stimulants were given as occasion required. The extreme severity of the paroxysms was somewhat mitigated, and the patient sat up from time to time; on one occasion, half a day. The bowels were moved without medicine, the dejections being semi-solid, and generally of a bright yellow color.

June 16th. I was called to Dr. Derby at two A. M., and found him in great suffering. His exclamation on my entering the room was, "Doctor, it 's peritonitis; it 's all over with me, and I want you to put me out of my misery." A severe chill had come on at ten P. M., which lasted two hours, and was followed by two hours of fever. During the chill he was seized with a sharp "catching pain" at the epigastrium; this spread rapidly over the whole abdomen, which was now quite full and tender. An enema had been given with some relief, and the abdominal surface had been irritated by the application of turpentine. The pulse was 90; the respirations 30. The patient had lain flat on his back, with limbs extended, for two hours, unable to move on account of the pain. With very great difficulty he was assisted to change his position slightly. Half an ounce of rum was given him, and repeated doses of sulphate of morphia (one sixth of a grain), ether being inhaled at once to alleviate the pain until the morphia produced some effect. At six A. M., the fourth of a grain of sulphate of morphia was given subcutaneously; it had not been considered expedient before, as there was some doubt of his ability to bear it in his exhausted condition without narcotism. He soon fell asleep, and awoke at seven A. M. free from pain, so that he could easily be moved from his constrained position. At this time the pulse was 88, the respiration 26. At half past eight P. M., the report was that he had slept most of the day. He had had at short intervals regurgitation of pale, greenish mucus and watery fluid, about a pint in all, with a sort of hiccough. He had taken only half an ounce of beef essence. Pulse 96, of good strength. Temperature 99°. No pain when at rest. No chill to-day. No marked physical sign at base of right lung. Tender on *firm* pressure at base of right chest beneath axilla; less so at right hypochondrium, with resonant percussion at that point. Bears firm pressure over the whole abdomen with very little inconvenience.

From the 17th to the 20th the symptoms of peritonitis continued, but not in the most violent form. The pulse ranged from 84 to 105, the latter observed only once, during the last hours of life. Temperature

98°, 101.8°, 97.5°, 98.5°, as noted on the 17th and 18th. The hiccough and vomiting continued, with an intermission of several hours occasionally, so that a certain amount of liquid nourishment and stimulants was retained. The abdomen was moderately full and tender, but not so much so as to prevent change of position without much suffering. There was moderate fever at night, but no chill. Each day Dr. Derby was able to get out of bed, and on one occasion sat up half an hour. Considerable relief was obtained from anodyne embrocations to the abdomen.

June 19th, 8 P. M. Extremities cold. Pulse 105, weak. Patient suffering much from dyspnœa. Champagne and beef essence with rum were given by the mouth and enemata, with a moderate amount of morphia. Great restlessness and dyspnœa continued until a short time before death, at forty minutes past midnight, consciousness being retained to the last.

Autopsy, by Dr. Calvin Ellis, thirty-three hours after death.

On opening the thorax the costal cartilages were found to be firmly ossified throughout. There was a limited old adhesion at the summit of the right lung, with some emphysematous rounding of the edges of the upper lobe. The surface of the lungs was spotted with small ecchymoses. No other morbid change was seen in the lungs. The trachea was firmly ossified. The heart was flaccid, and filled with liquid or loosely coagulated blood.

From two to three pints of offensive pus were found in the abdominal cavity. The peritoneum was more or less reddened, but the intestines were not adherent to each other, nor was there any recent lymph upon them. A layer of recent fibrin appeared on the upper surface of the liver. Old, firm adhesions united the right edge of the omentum to the parietes at the upper part; there was also an adhesion of the ascending colon, just below the arch, to the abdominal walls. Old, firm adhesions of the tissues about the gall-bladder completely concealed this organ. Pressure in this region caused the escape of pus from numerous small openings near the edge of the liver. An incision showed a cavity as large as an English walnut between the seat of the gall-bladder and the pyloric portion of the stomach, to which it was closely adherent. The ductus communis choledochus and the hepatic duct were continuous to the liver, and were stained with bile. The cystic duct could be traced but a short distance, and ended in dense, blackened tissue, which was a part of the lining of the cavity above mentioned. No gall-bladder was found, but some blackened, irregular shreds attached to the liver seemed to represent it. Just above the cavity first discovered, in the substance of the liver, was another, of about the same size, the inner surface of which was soft, flocculent, and of a dark-brown color. In the neighborhood were several other small abscesses, from half an inch to an inch in diameter, containing a thick brownish fluid. The hepat tissue about them did not differ from that of the rest of the liver, whi was somewhat reddened, the whole organ being increased in size abo one half, but not otherwise remarkable.

In the neighborhood of the seat of the gall-bladder, traces of infla mation were found in several branches of the hepatic vein, with seve small coagula, some of which were quite broken down.

The mucous surface of the stomach was dotted over pretty thick towards the pyloric orifice, with small, pinkish spots of congestion, b was otherwise healthy.

The spleen was considerably enlarged and quite soft.

No critical examination of the other organs was made, but a curso examination showed nothing apparently morbid.

Remarks. The history above related shows that, at the outset, t diagnosis of the case was extremely obscure. The symptoms seem to spring from the same cause which had occasioned the attacks to whi Dr. Derby had been subject for several years. After the occurrence the first severe chills, followed by fever and profuse sweats, the pro ability of a malarial element in the case presented itself with gre force. Dr. Derby himself was strongly inclined to regard his sympto as due to such a cause. The question arose whether it was possib that the quinine prophylaxis which he had practiced during the w could by any possibility have merely held a malarial attack in abeyan which now had come on with full power, the protective influence of t antiperiodic having become exhausted. Was it possible, too, that the atta was due to any recent exposure? And in this connection his visit Florida and his Western tour seemed to have special significance. R peated examinations failed to detect any local disease in progress whi could account for the great constitutional disturbance, unless the slig jaundice be excepted. The severe eruption of herpes on the eigh day was a serious complication, and added greatly to the sufferings the patient. The obscurity of the case began to disappear with t occurrence of pain in the region of the liver on the twenty-fifth da but even at this time the symptom was not at all urgent and was ve limited in extent.

The pulse was noticeably slow throughout.

The whole course of the sickness was one of great suffering to t patient. The chills produced the greatest distress, from the dyspn which they occasioned. The rigid chest, from ossification of the car lages, gave little chance for expansion in respiration, and the diaphrag and abdominal muscles were much impeded in their action by the co traction of the rigors. Early in the attack Dr. Derby said he felt must die during a chill, so terrible was the embarrassment of his breat ing. These attacks came on mostly at night, so that he suffered muc for want of sleep; they were also very frequent, on several occasions occurring three times in thirty-six hours. It will have been noticed that they ceased at once when the symptoms of peritonitis appeared. It would seem that the old disease of the gall-bladder was the starting-point of the phlebitis which led to the formation of the hepatic abscesses.

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MAMMILLITIS.[1]

BY S. F. BACHELDER, M. D.

THERE is one form of mammillitis which does not seem to be benefited by any of the usual applications. I allude to the condition where there is a fissure or crack at the base of the nipple, nearly separating it from the breast. Inflammation is likely to set in after a few days, and the tendency is to go on from bad to worse indefinitely. Byford says,[2] "To such an extent are the fissures of the base carried by ulceration, sometimes, as completely to amputate this little projection." But there is generally at first little or no inflammation, and a careless observer would frequently fail to discover any trouble; and when found it appears like a clean cut with a sharp knife partly around the base of the nipple. As long as it can be kept quiet it is comparatively painless; but every effort of the child to nurse draws the edges apart, breaking up any adhesions that may have formed, and causing agonizing pain to the mother. These are the cases where none of the plans recommended in the books ever seemed to do any good in my hands.

It occurred to me that as it was impossible to keep the edges of the fissure in apposition so as to heal, while the child nursed, they might be kept separated all the time, so that the ulceration might fill up from the bottom by granulations. Acting upon the thought, in a case of this kind, I took a strip of adhesive plaster two inches long by one quarter of an inch in width, attached one end to the nipple near the apex, and then by traction upon it drew the nipple away from the fissure so as to open the latter as much as possible. The other end of the plaster was then attached to the breast so as to hold the nipple in this oblique position, thus keeping the fissure permanently open. The part was then dressed with a solution of nitrate of lead in glycerine, ten grains to the ounce, and instructions were given to remove the plaster when the babe was to be nursed, but to apply another in the same way immediately afterwards. There was no more complaint, and in two days the woman, in answer to my inquiries, said it was well.

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[1] From a Communication read before the South Boston Medical Club, December 10, 1874.

[2] Byford on Diseases of Women.

To prevent, not only these cases, but mammillitis and mastitis generally, I would recommend the following plan to be practiced during the last months of gestation: Avoid all liniments, ointments, or washes, except water; remove all pressure of the clothing, so as to allow the nipples and breasts to take the size and form that nature chooses, and expose them as much as possible to the action of light and air; manipulate the nipples several times daily with the fingers, imitating the action of a child's mouth while nursing, but gently, so as to avoid any irritation. The combined effect of the freedom, light, air and friction, will make them tougher and less liable to abrasions, cracks, or excoriations.

RECENT PROGRESS IN PATHOLOGY AND PATHOLOGICAL ANATOMY.

BY R. H. FITZ, M. D.

PATHOLOGY.

Recognition of Bacteria. — After referring to the difficulties in the way of determining by optical and chemical means the nature of the globular forms of bacteria, Hiller[1] refers to his own experiments, and concludes that his methods are such as may permit bacteria to be recognized and to be distinguished from bodies of a similar appearance. To make these methods available they must be properly employed, and with a sufficient botanical knowledge of the life and growth of the vegetation. These means are optical and chemical, supplemented by culture.

By optical means are determined the characteristic forms of growth — as rods and threads — and the characteristic movements of monads and rods in very fluid media. The manner of their growth and multiplication is also thus ascertained, the rule being that free monads and rods can only develop into free individuals of the same sort under appearances of motion, and that a growth of motionless bacteria is always a continuous one, necessarily leading to the formation of threads or masses. The granular masses may be seen to be firm, continuous, membraniform, or loose, movable, forming an emulsion.

The chemical means serve to distinguish granular detritus imbedded in albuminous material, such as results from the death of cells, from membraniform masses of vegetation, since the former is dissolved, liquefied by caustic potash, and is coagulated by alcohol, whereas the latter are unaffected by these reagents. Further, if tissues are macerated for an hour in a ten per cent. solution of caustic potash, monads contained in them will be stained yellow by iodine; fat granules are not colored.

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[1] Virchow's Archiv, vol. lxii., 1875.

Finally, by culture the vitality of the organisms may be determined. The usual precautions are insisted upon, and bent capillary tubes are recommended for the examination of the blood, the upper end being closed with cotton, the lower end sealed.

Bacteria in Endocarditis and Acute Rheumatism. — Previous to 1870 but little general interest was manifested in certain forms of endocarditis, which had been more frequently observed in puerperal conditions, though Virchow had repeatedly called attention to the matter, had published several cases, and had spoken of the form as an acute, ulcerating (diphtheritic) endocarditis.[1]

Meyer[2] published a brochure in 1870 on ulcerated endocarditis, wherein he spoke of its great clinical importance, and of the various conditions with which it was associated, as emboli, metastatic abscesses, hæmorrhages, parenchymatous alterations, etc. The disease was spoken of as a grave one, and was regarded in the same light as pyæmia. The ulceration of the valves of the heart was considered to be due to an exciting cause, as articular rheumatism, febrile processes of a general character, puerperal diseases, typhus, exanthemata, etc., which acted upon an already diseased endocardium, as the remains of an antecedent valvular endocarditis were usually present.

The emboli producing the secondary changes were regarded as elements floated away from the endocardium, which were chemically injurious, and similar to pus, or of a purulent character.

Virchow[3] referred to this subject at considerable length in a communication to the Berlin Obstetrical Society, stating that usually such decided alterations of the uterus and its appendages were present that the endocarditis might be regarded rather as a complication. There were also cases where the endocarditis was the main disturbance, the uterus being relatively unaltered. It was peculiar to the process that the changes in the valves, which at the outset resembled those of simple endocarditis, terminated in softening and rupture. Multiple embolism was thus likely to occur, the results of which were minute nodules resembling abscesses. Such forms may be exceedingly malignant in character, therein seeming to be influenced by the accompanying puerperal affection, as diphtheritis, phlegmonous inflammation of the broad ligament, etc. The condition of the valves resembled a diphtheritic mass, composed of granular particles, and it was considered probable that the changes occurring in the diseased valve were allied to the diphtheritic process. It was also admitted that minute organisms of the same apparent character were present in the circulating blood life, which might "take root" in the endocardial surface, and r In some instances Virchow found similar granular masses in th tatic nodules; he had seen them also in the vessels of the choroi spleen and kidneys, not only in but also outside the vessels. also found them in the kidneys from cases of putrid cystitis, view of their parasitic nature was corroborated by the observ Von Recklinghausen.[1] This pathologist ascertained that milia mulations of micrococci were the cause of the small abscesses fo large number of infectious diseases, particularly in pyæmia a peral fever; also in typhus, acute articular rheumatism, urinary tion, and pulmonary gangrene. They were found most frequ the kidneys, usually surrounded by a zone of tissue, hæmorr infiltrated with pus, though there might be no surrounding rea pearances where the condition was a recent one. In many i there was no endocarditis. On one occasion where slight de were found upon the mitral valve, he considered it more prob such were metastatic in the same sense as their presence in othe

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[1] Gesammelte Abhandlungen, 1856, page 721.

[2] Ueber die Endocarditis ulcerosa, 1870. Jahresbericht von Virchow und Hirsch für 1871, ii. 92.

[3] Ueber die Chlorose und Endocarditis puerperalis. 1872.

Long before this, Beckmann[2] spoke of the occurrence of granular mass in the renal tubules, Malpighian bodies and cap those persons who had died of pyæmia. He stated further individual granules bore a close resemblance to vibrios, and were found to present vibratory movements.

Heiberg[3] reported a case of puerperal ulcerative endocarditi granular masses were present in the heart, and which he consi a parasitic nature. He gave also a *résumé* of a case of Wing municated to the Swedish Medical Society in 1869, in which were the masses present in the heart, but they were also found embolic nodules. In both these cases the granules were reg fungous growths, and it was supposed that their germs had ente without.

It was further suggested that every ulcerative endocarditis n "pyæmic (or puerperal), an infectious disease due to the ent noxious substances (fungi?) from without, a view corresponding with Virchow's opinion that the ulceration was of a diphtheri acter."

Under the title A Case of Capillary Embolism, Beckmann[4] one whose clinical course suggested that of typhus with petec the anatomical appearances were those of ulcerative endocar multiple embolism. The diseased valve bore finely granula not readily acted upon by reagents. Minute spots in the substance of the heart contained capillaries in which was a similar granular mass. Like conditions were found in the kidneys and in the vessels of the pia mater.

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[1] Centralblatt für die medicinischen Wissenschaften, 1871, page 713

[2] Virchow's Archiv, 1856, ix. 221.

[3] Virchow's Archiv, 1872, lvi. 407.

[4] Virchow's Archiv, 1857, xii. 59.

An article on diphtheritic endocarditis, by Eberth,[1] now appeared. A special form of disease of the valves of the heart in pyæmia had suggested itself to him as due to minute organisms. It appeared like the acute rheumatic forms, but masses of spherical bacteria were found upon the surfaces of the valves. He attributed to these the property of producing secondary suppuration independently of the transfer of coarser particles.

His case is recorded as one of malignant ulcerative endocarditis, pursuing an independent course, with the symptoms and characteristic alterations of pyæmia, but quite free from the presence of a diphtheritic wound. Granules regarded as globular bacteria were found in the heart in punctate hæmorrhages and abscesses, and as emboli in the Malpighian corpuscles. A local source for their admission into the blood could not be ascertained.

In the same year Lanceraux[2] suggested the view that a paludal poison gave rise to the ulcerative, vegetative form of endocarditis, the clinical features of which resembled those of septicæmia.

Eberth[3] then reported a second case which proved rapidly fatal, with ulceration and diphtheritic patches upon the mitral valve, and miliary abscesses in the heart and kidneys, the vessels in which contained punctate bacteria. Colonies of bacteria were found also in the swollen mesenteric glands. There was no wound through which the spores could have entered from without.

The corneæ of rabbits were inoculated with the contents of the cardiac and renal abscesses; profuse suppuration and perforation followed, and a decided growth of bacteria was found here.

A case of primary diphtheritic endocarditis was next published by Maier.[4] The aortic and pulmonary valves were thickened, the former ulcerated and perforated. From the perforated spot a canal extended through the base of the auricular septum into the left auricle, where was a ragged opening. A large abscess was found beneath the capsule of the right kidney, communicating with the renal pelvis; elsewhere in this organ were small red and yellow spots. A finely granular mass like that found in diphtheritic mucous membranes was observed on the edges of the perforation of the aorta, and was considered to be composed of globular forms of bacteria. Similar granules were scraped from the wall of the abscess in the kidney, and others were found between the tubes, in the Malpighian capsules; also in the minute yellow spots. The case was regarded as identical with Eberth's, though its course was less rapid. The onset of the disease, with chills, high temperature, headache, diarrhœa, stitch in the side (splenic enlargement) was very characteristic. It progressed with high temperature, congestion of various organs and a tendency to hæmorrhages in them, diarrhœa, and marked nervous symptoms indicative of a septicæmia. The nervous symptoms were twitchings of the face, tetanus of the cervical muscles, violent headaches; and later, babbling, tremors, involuntary evacuations, and sopor.

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[1] Virchow's Archiv, 1873 lvii 228

[2] Boston Medical and Surgical Journal, October 16, 1873. Second Report on Pathology.

[3] Untersuchungen aus dem pathologischen Institut zu Zurich, 1873. Jahresbericht von Virchow und Hirsch, 1873, i. 213.

[4] Virchow's Archiv, 1874, lxii. 145.

The symptoms and post-mortem appearances indicated a complication of septicæmia and embolism, the main affection being an endocarditis (probably primary) and a nephritis. Here, too, there was no sufficient evidence of the manner by which the spores entered the system.

The septic nature of some forms of acute articular rheumatism is very strongly suggested by the case reported by Fleischhauer.[1] He alludes to the occurrence of acute inflammation of the joints in puerperal fever, scarlatina, diphtheritis, typhus, dysentery, erysipelas, ulcerative endocarditis, and pyæmia. It is then suggested that a like or similar cause may be active in all, a view favored by the discovery of spores in almost all the above-mentioned diseases.

The clinical course was that of rheumatism, lasting four weeks, during the last two of which the symptoms were of so acute a character as to compel the patient to take to her bed. Miliary abscesses were found in both lungs, kidneys, heart, and in various muscles; there was also a suppurative parotitis and synovitis of various joints.

The renal abscesses contained granules whose optical and chemical relations were those of micrococci. These were present in the tubules mainly; between them and the more normal parts of the kidney was a zone of pus corpuscles. The organisms, at times, extended into the surrounding tissue, apparently having escaped from the tubes. The muscular abscesses, the largest of which were in close relation to the inflamed joints, consisted of agglomerations of globular bacteria surrounded by a layer of pus corpuscles. The same was true of the abscesses in the heart. Those in the lungs often presented as centres two or more alveoli filled with micrococci, surrounding which was pus. and still farther out the alveoli were filled with blood. In larger abscesses the bacteria were present in capillaries and veins. In the vessels and ducts of the inflamed parotid gland, colonies of micrococci were found. The examination of the joints gave negative results so far as these bodies were concerned. The manner of their invasion was obscure. It was considered that this case might be placed in the category of those of diphtheritic endocarditis previously referred to, notwithstanding the absence of that affection here.

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[1] Virchow's Archiv, 1875, lxii. 386.

Typhoid Fever. — In blood taken from the finger of a typhoid patient in the second week of the disease, Eichhorst[1] found fine granular, colorless cells, which were observed for five days. These were from four to six times larger in diameter than the white blood corpuscles, and contained from two to seven yellow disks entirely resembling red blood corpuscles, though somewhat paler.

They could be freed from the larger cells by pressure and the addition of water. Some of the cells presented projections like those of contractile cells. Otherwise the blood was not abnormal; even the small glistening granules, generally so abundant in febrile blood, were but scanty.

Klein[2] states that he found, in sections from hardened specimens, appearances in the mucous membrane upon and near Peyer's patches which show that an absorption of peculiar organisms occurs, and that they are transmitted along the lymph and blood vessels of the mucous membrane. In a case examined seven days after the headache, peculiar round, yellowish-brown bodies were found in the crypts of Lieberkühn. They varied in size from one fourth to three times that of a human red corpuscle, and were generally grouped in masses, then appearing of an olive-green color; on the edges of these groups, appearances of subdivision were indicated by kidney and biscuit shaped bodies. Similar bodies were present within the mucous membrane, apparently contained in lymphoid cells. These micrococci were in a genetic relation to a mycelium of a greenish-yellow color.

Masses of greenish-yellow micrococci were found penetrating the surface of the mucous membrane from without, also extending from the crypts of Lieberkühn into the surrounding lymph-passages.

(*To be concluded.*)

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PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

W. L. RICHARDSON, M. D., SECRETARY.

Congenital Malformation of the Œsophagus. — DR. TUCK reported the case. A male baby was born at the Boston Lying-In Hospital February 20, 1875. The labor was normal. The throat seemed filled with mucus at the time of birth, and about an hour later the baby was noticed to turn black in the face and to almost stop breathing. Some of the mucus was removed by tickling the throat. Wine of ipecac, in doses of ten drops, was given several times, but without any effect. At length the breathing seemed easier, and continued so during the night. The baby was laid down with its arm bent under th body. It was soon noticed that the arm turned almost black, although it speedil regained its normal color on change of position. During the whole of th next day the child raised mucus in large bubbles. During the two followin days he vomited all nourishment that was given. An examination of the che showed nothing, the sounds being obscured by the rattling of mucus. The sixt day the baby began to vomit bloody matter, and the next day he came nea dying in the morning from asphyxia, but was relieved by a warm bath. Fo a short time he seemed better, but refused to nurse, and appeared very feebl The vomitus appeared to be almost pure blood, which came through both th mouth and the nostrils. At ten o'clock, having passed only a slight amount o meconium, the child received an injection with little or no result. He faile rapidly, and died on the seventh day.

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[1] Deutsches Archiv für klinische Medicin, 1874, xiv. 223.

[2] Centralblatt, für die medicinischen Wissenschaften, 1874, xliv. 692.

Dr. Fitz gave the following account of the autopsy, and showed the specimens.

The pharynx and upper part of the œsophagus terminated in a blind pouch about an inch above the bifurcation of the trachea. Immediately below, th œsophagus entered the posterior wall of the trachea by a small opening, apparently surrounded by a sphincter muscle. There was no evident connectio between the two portions of the œsophagus. The ductus arteriosus wa remarkably large, nearly of the size of the thoracic aorta. The arch of th aorta was unusually small; in consequence of which the appearance of th specimen suggested the direct origin of the descending aorta from the righ side of the heart. The spleen was quite small; the kidneys anæmic. Th lower portions of both lungs were distended, dark red, non-crepitant, evidently filled with blood, and presenting the appearance of hæmorrhagic infarction.

Comparative Expense of English and American Cannel Coal. — Dr. N Folsom reported the following experiment, which had lately been tried at th Massachusetts General Hospital. Two rooms of the same size, and similarl situated, were selected for the experiment. The temperature in each was kep as nearly uniform as was possible for twenty-four hours. The thermometer outside the building varied from 15° F. to —3° F., while the temperature of th two rooms averaged 65.1° F.

The result of the experiment was as follows. The American coal does n have the lustre of the English, being much duller in appearance. It comes i larger lumps, and burns with decidedly less flame, leaving behind a very larg amount of ashes. On first igniting, it snaps badly. If left to itself for considerable time it coats itself with fine white ashes. The English coal, o the other hand, gives out a more agreeable heat, and burns with a bright an far more attractive flame. It does not snap, and can be kept a long time without requiring any attention. The American coal used in the experiment co fourteen dollars a ton, while the English cost twenty-four dollars. The weigh of coal burned was as follows: of American coal, seventy pounds, at a cost of forty-nine cents; of English coal, thirty-five pounds, at a cost of forty-two cents. In other words, the expense of the English coal was one seventh cheaper than the American, without taking into account the extra amount of labor required to carry the additional quantity of American coal.

Tobacco Poisoning. — DR. WEBBER reported that he had seen several marked cases of chronic poisoning from the use of tobacco. They were characterized by a pain, more or less severe, which began in the lower part of the chest, just below the left nipple, and, later in the course of the disease, extended higher up on the thorax and also down the left arm. The pain was usually described as of a sharp, shooting character. The patients also complained of a peculiar soreness of the muscles of the arm. Nearly all the patients feared heart-disease.

DR. J. J. PUTNAM said that he had under his care a patient who awoke every morning with a feeling of intense depression in the cardiac region, accompanied by more or less tremulousness of the hands. These symptoms would last until noon, when they would entirely disappear. He thought that they were due entirely to the excessive use of tobacco.

DR. KNIGHT said that it was undoubtedly a fact that patients who are troubled with these symptoms very frequently entirely recover on leaving off the use of tobacco, without any medical treatment.

Cancer of the Uterus; Pregnancy. — DR. CHADWICK reported the case. MRS. J. W., aged thirty-four, had eight children and one miscarriage in eight years. With her second husband she had four miscarriages in four years. Her mother died of cancer of the breast. The patient always enjoyed good health until September, 1872, when she was kicked in the abdomen by her husband. She flowed profusely at the time, and subsequently never menstruated regularly. In August, 1873, she began to have abdominal pains, accompanied by a constant serous and bloody discharge from the vagina.

In the autumn of 1873 the cervix uteri was found to be enlarged and nodular, but the vagina was not in any way implicated. Dr. Chadwick advised amputation, but it was not allowed. The hæmorrhage was temporarily arrested by the use of chromic acid. The following February, owing to severe pain and hæmorrhage, the operation was performed with a view to alleviate those symptoms.

Entire relief from pain and a complete arrest of the bloody discharges followed for three months, during which time the remains of the disease continued to grow, but unaccompanied by any ulcerations. The patient gradually recovered her strength. The following May the ulcerations began again to appear, accompanied with profuse hæmorrhage and constant, foul, watery discharges. Early in June all these symptoms suddenly ceased; some pain only was complained of. This gradually increased, and, at last becoming paroxysmal, resulted in the birth of a three months' fœtus in August. Immediately afterwards the hæmorrhage and the serous discharges recommenced, and she died about the end of the following January.

In connection with this case DR. CHEEVER reported the following:—

On making an examination of a lady about to be confined at full term, a hard, nodular, cancerous mass was discovered on one side of the cervix uteri. This was the first that was known of the existence of any such disease in the patient. The labor progressed favorably, and was not in any way impeded by the presence of the foreign growth. As soon as the lochia ceased, the cancerous mass was removed. The patient made a good recovery, and did well for a number of months, when the disease returned, with a fatal termination.

Case of Supposed Injury to the Arm. — Dr. Boardman reported the cas as follows: Mr. J. presented himself in August, 1874, with the view of r ceiving treatment for some injury to his right fore-arm or elbow-joint. H stated that on the previous day he stepped from the rear platform of a hors car, in order to permit the entrance of another passenger, and retained h hold by the right hand upon the handle of the dasher, facing in the directi of the horses. As the car was set in motion again, his feet slipped fro under him, and, finding himself unable to regain his foothold, he let himse loose from the car, and, he thinks, fell upon his right hand. Whether his su posed injury was the result of traction upon the right arm or of the fall up the right hand, he was unable to say. When seen by Dr. Boardman, the patient condition, according to his statement, was the same as immediately after t accident. The right arm hung by the side, completely pronated. The patie was able to flex the fore-arm and to supinate the hand to a very slight degre only. There was no swelling of any joints, no pain or redness. Manipul tion failed to produce any pain, except that forcible supination occasioned tolerably sharp pain at a point on the shaft about two or three inches fro the wheel of the radius. Deep and firm pressure with the finger-tips at t locality would occasion a similar pain. Careful examination detected nothi abnormal except the inability to bring muscular action into play and the f that supination could be effected only to the degree in which the thumb wou point nearly upwards, when the act would seem to be arrested abruptly something in the region of the head of the radius. The wrist-joint obvious was intact. At the elbow-joint, no crepitus could be detected; the patien arm was not fleshy, and careful examination, with and without manipulati and comparison with the left arm, failed to discover any fracture or dislocati The wheel of the radius could be seen, as well as felt, to revolve in its prop locality. Both the bones, the radius and ulna, could be distinctly traced, an nothing like a callous growth or exostosis, which might interfere with th rotation of the radius, could be found. The patient stated that he had neve had rheumatism, and, to his knowledge, had never before met with any injury to this arm. In his occupation as a cook he had never had any trouble with this arm or hand; he was accustomed to carry heavy weights, was right-handed, and was never conscious of any difference in the appearance of the two arms. Believing the case to be a congenital deformity or the result of some injury during the youth of the patient, of which he had no knowledge, yet questioning the probability of the existence of this condition, when supination was impossible, without the knowledge of the individual, Dr. Boardman felt unwilling to assume the entire responsibility of the case, and so requested Dr. Gay to see the patient with him. Dr. Gay examined the arm with great care, and, without knowing Dr. Boardman's opinion, finally stated that he was unable to find any fracture or dislocation, but would decline to make a diagnosis without administering ether. The patient was thoroughly etherized, and another examination was made. While anæsthesia was being produced, the patient struggled violently with every portion of the body except the right arm which remained at rest by his side. Nothing further was found after this final examination, and Dr. Gay agreed that there was no recent fracture or dislocation, and that the deformity probably existed prior to the accident. Friction with a simple liniment was ordered. One week later, the patient was seen again. In the interval, no new symptoms had developed. The muscular activity was returning, so that he could then flex the arm and rotate the hand himself; but the rotation was still limited to a small arc, just as it was after the accident, and when tried by himself was arrested abruptly, as before. The patient was intending to resume his ordinary occupation in a few days, and has not been heard from since that time.

A Case of Peri-Uterine Inflammation. — DR. SINCLAIR reported the case. Mrs. ——, aged thirty-six, has been married seven years, but has never been pregnant. Has been generally healthy. Shortly after marriage she suffered from pelvic inflammation, which confined her to her bed for nearly three months. Since that time her health was good until the end of June last, when she experienced unusual fatigue after exertion. Immediately after a catamenial period, which ceased July 18th, she felt chilly and complained of hypogastric pains, headache and backache, nausea, vomiting, and dysuria, which steadily increased. Uterine hæmorrhage came on a week later and continued more or less freely throughout her illness. She was first seen by Dr. Sinclair August 8th. She lay on her back, the lower extremities being retracted, the abdomen exquisitely tender on pressure. There was also anorexia and constipation. The nausea, vomiting, headache, and dysuria continued. The pulse was 108; skin hot, tongue foul; there was also great wakefulness. A paroxysmal pain was complained of in the right iliac region.

On examination of the pelvic organs the vagina was found to be hot and tender; uterus nearly fixed; some fullness in the right and posterior culs-de-sac, displacing the uterus forward and to the left. Touch gave intense pain. Eight leeches were applied to the hæmorrhoidal veins, after which the bites were fomented. Suppositories of morphia and belladonna were directed to be placed in the rectum, *pro re natâ;* flax-seed poultices were applied to the hypogastrium; hot vaginal douches for several minutes, twice daily; two grains of quinine were taken four times daily. The diet consisted chiefly of milk with lime-water, and essence of beef, taken often in small quantities. By these means pain and general discomfort were alleviated.

August 13th. The pelvic pain had increased for past three days. The fullness and tenderness recorded a week previous had greatly increased; the uterus was quite fixed and more displaced. It seemed as if an abscess were forming.

August 16th. The tumefaction was greatest in the posterior cul-de-sac, giving pain about the anus and down the left leg.

August 18th. The pelvic trouble had increased to such a degree that it could be perceived externally. The patient suffered greatly from prostration, vomiting, and dysuria, with a constant desire to relieve the bowels. Pulse, 108. Considerable relief was obtained from the use of ten drops of the compound tincture of ipecac, every three hours.

August 19th. Tenderness continued, but with less pain.

August 20th. About the same. Pulse 92. Constant nausea with occasional vomiting. Tongue furred. Bowels open from fluid extract of senna. Patient wakeful, emaciated, exhausted. No hæmorrhage for two days.

August 22d. Patient more comfortable than since illness. Still shooting pains in pelvis. Tumefaction diminished since yesterday. Patient took and retained some solid food for the first time, yesterday. No appearance of pus at any time, from vagina or rectum.

August 24th. Still more diminution of pelvic swelling; less pain. Pulse 78. The patient feels encouraged.

September 13th. Tumefaction nearly disappeared, uterus nearly mobile Catamenia present; no pain.

Dr. Sinclair said that the foregoing was a mere synopsis of the course duration, and treatment of a somewhat severe case of peri-uterine inflammation. The details give a very imperfect notion of the amount of sufferin through which the patient passed. Seized with pain on the 18th of July, was a month before any change for the better was perceived. Three weeks after the attack the peri-uterine swelling seemed as if to form an abscess, b that no pus had formed was conclusive from its non-appearance in any the discharges. The exciting cause of the trouble in this case was gonorrhœ poison communicated by the husband, who also confessed to having had a gonorrhœa at the time of his wife's first attack, soon after marriage. The time infection could not be well defined, but pelvic trouble of this kind has be noticed to declare itself after the next menstrual period. According to Bernutz this was an affection corresponding to an orchitis in the male. T opinion is plausible and probable; but, laying the history of the case aside, would be hard to distinguish a case of peri-uterine inflammation consequent venereal poison from one arising from venereal excess.

Dr. Sinclair said he believed it to be scarcely worth while to make an remarks concerning differential diagnosis, unless it be a word or two about its relation to pelvic cellulitis. When attention was first, in modern times, directed to this class of pelvic troubles, to which pelvi-peritonitis belongs, it was supposed that the cellular tissue of the pelvis was the structure always involved, and that abscesses formed there only. It did not then enter the minds of any one that the cavity of the pelvis, inside the peritoneum, was more frequently the site of the disease than the cellular tissue outside the peritoneum. Bernutz especially deserves the thanks of the world for making this important truth known to science.

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PUBLIC PARKS.

THE city council of Boston has at last declared itself in favor of the establishment of public parks, by requesting the mayor to petition the legislature for authority to purchase lands for the purpose. The original order, which was introduced into the board of aldermen January 11th, asking for authority to purchase or otherwise take lands within the limits of the city, and for the assessment of betterments upon adjoining lands benefited by the establishment of a park, was stoutly contested in both branches of the government, and received important amendments. The measure finally obtained the support of seven out of the twelve aldermen, and was passed in the popular branch by a vote of forty-four to fifteen.

Most of the amendments introduced into the order were of a restrictive character, and were intended to guard the city treasury against any hasty action or undue expenditure at the behest of any body of speculators. The legislature is asked to provide that no money shall be expended, either in the purchase or the improvement of parks, unless authorized by a vote of two thirds of the city council, and that the act asked for shall not take effect unless accepted by a majority of the voters present and voting at a special election. An amendment that no expenditure should be authorized or made for the purchase or improvement of any land, exceeding in amount the sum raised by taxation and appropriated by the city council for the purpose, and the money actually received for betterments assessed on adjoining lands, — a provision which would make the parks of very slow growth year by year, — though adopted by the board of aldermen was struck out by the common council.

A wise provision was also introduced looking to the appointment of park commissioners, by asking that all parks, and the purchase of land for the same, in Boston shall be in charge of three commissioners, not members of the city government, to be appointed by the mayor and confirmed by the city council and removable at any time by a vote of two thirds of the city council.

A still more important request was added to the order by the adoption of the provision authorizing any adjoining city or town that may desire to do so, to coöperate with the city of Boston by purchasing or taking lands within its own limits for similar purposes. By this means it is hoped that in the adoption of any plan, we shall not be limited to the narrow and irregular boundaries of the city of Boston, but that the wonderful advantages of the Charles River basin, and of the very accessible and beautiful spots of natural landscape which still remain in Brookline and perhaps in towns north of the city, can all be taken into consideration, and that, in the final laying out of the park of the future, that scheme will be adopted which will furnish us the very best park that Boston and its suburbs with their unsurpassed opportunities can offer.

The city now puts in an appearance at the State House in connection with the citizens, who have already petitioned and been heard. A satisfactory bill in accordance with the above provisions of the order of the city council has been prepared and presented, and there is good reason to believe that the legislature will speedily grant the request for authority to establish public parks.

MASSACHUSETTS GENERAL HOSPITAL.

Attention was called last year in this journal to the annual report of the trustees of the Massachusetts General Hospital, some of the recent improvements and additions being at that time alluded to. It will be remembered that the plan on which the new wards were constructed differed essentially from any hitherto adopted in this city. The reputation which Americans have won in the matter of hospital construction, arising from the valuable experience obtained during our late war, owes its origin largely to that trait of character which enables us to disentangle ourselves without great difficulty from traditions of the past in order to keep pace with the march of modern improvements. The buildings to which we now allude are interesting examples of this radical change from the old system. Two of these, built on the pavilion, or one-story plan, have been occupied during the past year, and have been found most useful additions to the hospital; although not perfect in all respects, the general plan on which the ventilation has been arranged worked satisfactorily, and the Warren ward, a fine illustration of the pavilion order, was pronounced by the late Dr. Derby to be the best-ventilated hospital ward he ever saw.

The success of these additions to the hospital has encouraged the trustees to attempt a third pavilion, which will embody such improvements as the experience with the two previous ones has suggested. This is to be called the Bigelow pavilion, in recognition of the hospital services of Dr. Jacob Bigelow during a term of twenty-eight years. A new building containing an autopsy-room and pathological cabinet has also been completed, and is now in use. As this is probably without exaggeration the finest of its kind in the world, we shall reserve a detailed description of it for a future number.

The trustees have doubtless felt authorized in making this outlay in view of numerous munificent bequests of which this charity has of late been the recipient. Among these we notice one, the Lincoln fund, which amounts to two hundred thousand dollars. It will be seen that the hospital, now well advanced in its second half-century of existence, still retains all its youth and vigor as a useful charity; its age is made manifest rather by the increased strength of its hold upon the affections of our charitable and beneficent fellow-citizens.

MEDICAL NOTES.

— At the annual meeting of the Boston Society for Medical Observation, held April 5th, 1875, the following officers were elected: —

Secretary, Dr. Edward Wigglesworth, Jr.; treasurer, Dr. Francis H. Brown; librarian, Dr. Alfred L. Haskins; pamphlet librarian, Dr. Charles P. Putnam; committee on admissions, Drs. William L. Richardson, J. Collins Warren, Henry H. A. Beach.

— The new Hôtel Dieu, now in process of erection, is described in the *Union Médicale.* As is very well known, during the three years which hav[illegible] followed the war the work has been suspended. The year 1874 was entire[illegible] given up to the execution of various changes in the plans recommended [illegible] the municipal council. These changes consisted especially in lowering [illegible] roofs, whose excessive height cut off the air and sunlight from the courts [illegible] promenades intended for convalescents, and in the removal of one story [illegible] the two wings which front on the quay Napoleon. Now all the chang[illegible] introduced into the original plans have been made, and the work has [illegible] begun again with renewed activity and vigor. The building is compose[illegible] six wings, three towards the east and three towards the west. Each wing has three stories, which are connected with the main building in the centre, which has also three stories. The two wings which face the Seine upon the quay Napoleon have but two stories of eleven windows on each façade. They are not intended for patients, but will be occupied by the different services of the Faculty of Medicine. The work is not in progress on this side. On the side of the grand façade the work is far advanced. The stairways are nearly completed. Carpenters, lock-smiths, and all the other workmen are busily engaged, and if some new administrative difficulties do not arise there is reason to hope that the inauguration of this new structure, certainly one of the most beautiful in Paris, will take place in the not distant future.

— An instance of poisoning by conium recently occurred in Brooklyn under peculiar circumstances. The proprietor of an electrical-bath establishment, who had been affected during two years with a nervous disorder, for which he had been treated by Brown-Séquard, took fifty minims of Squibbs's fluid extract of conium, repeating the dose twice in an hour. Meantime he dictated to his wife notes of the physiological effects of the drug as he observed them in his own person. An hour after the last dose was taken, the wife noticed the development of alarming symptoms, and death speedily supervened. The fatal result became the subject of a coroner's investigation.

— Not long since, *L' Union Médicale* directed the attention of its readers to the statement of Dr. Simmons as to the happy results, in cases of obstinate vomiting, of the administration by the rectum of chloral hydrate. Dr. Simmons recommended to begin with a dose of thirty *grains* morning and evening. By mistake, it was printed in *L' Union Médicale* thirty *grammes* — an enormous difference. A subscriber not long after came to grief by administering *per rectum* half the quantity, fifteen grammes, to a hysterical patient for whose frightful paroxysms he had prescribed almost everything ineffectually.

A few minutes after the administration of the chloral the patient became completely collapsed, and remained in a state of unconsciousness, with constant tendency to syncope, for several hours. She was restored to consciousness with great difficulty by the persistent efforts of her physician.

Naturally, the subscriber calls the attention of *L' Union Médicale* to its error. That journal replies that for a long time the *grain* has not been employed in French prescriptions, and by a misprint *gramme* was substituted for *grain*. It thinks the excessive dose thus recommended should have made readers cautious as to its exhibition.

— At a meeting of the Society of Physicians in Vienna, reported in the *Wiener Medizinische Presse*, Dr. Schulz described a new form of disease which hitherto he had observed only in ballet-girls, and which manifested itself in a cramp of the muscles of the calf of the leg. It occurred chiefly amongst those who were in the habit of performing a *pas seul* on the points of the toes. The disease appeared to be similar in its character to writers' palsy. The muscle which is the chief agent in supporting the body upon the points of the toes is the flexor longus pollicis. This position, which is accompanied by a rigidity of the whole limb, can only be maintained when the foot is supported by a shoe made for this particular purpose. This muscular cramp was relieved in all cases by faradization. Professor Patruban, in reply to this communication, stated that in his opinion it was "anatomically, physiologically, physically, and artistically" impossible that a dancer should stand upon the points of the toes; but that the sesamoid bone was the point of support. In proof of this view he referred to Hyrtl's lectures, and to the fact that Dr. Schulz had never had an opportunity to see the naked foot in this position.

— It is stated by the *Lancet* that Garibaldi, who has in his time played many important parts, is now going to head a Roman army of sanitary reformers, and see what can be done for the material interests of Rome by bringing a bill into Parliament for improving the Campagna and embanking the Tiber. We hope he may be as successful in his new undertaking against bad drainage, dirt, and malaria, as he was in some of his achievements towards the accomplishment of the great object of his life — Italian unity.

— Among the recent additions to the periodical medical literature of this country we notice two quarterly journals of an unusually high order of excellence. The *Archives of Dermatology*, published in New York, and the *Chicago Journal for Mental and Nervous Diseases* are both highly creditable to their editors. The care taken in the selection of material and the good taste displayed by the publishers are evidences of an appreciation of the increased demand among us for a high standard of excellence in our medical literature.

SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. CHEEVER AND INGALLS.]

THE operations performed during the week ending Friday, April 2, 1875, were as follows: —

1. Caries of humerus and tibia. 2. Hæmorrhoids (ligature). 3. Removal of toe-nails. 4. Internal urethrotomy. 5. Stricture of urethra (dilatation). 6. Amputation of toe. 7. Amputation of fingers.

1. *Caries of Humerus and Tibia.* — A plump, healthy-looking lad, twelve years of age, had a "fever" about fourteen months ago. This was soon followed by severe pain and swelling in the left leg. At the end of two months this swelling broke and discharged pus freely. Six months after the "fever," he first noticed pain and swelling over the upper part of the left humerus. He had never received any injury. At the time of the operation the swelling in both the leg and the arm was moderate. The discharge was not profuse. There were three sinuses over the upper part of the tibia, and two of them led down to the bone. Dr. Cheever enlarged these and found an opening extending through the anterior wall of the head of the tibia into the cancellous structure. The sinus in the bone was enlarged with gouges, and all of the softened and diseased material scooped out. On the anterior surface of the left arm, three or four inches below the shoulder-joint, were two sinuses leading upwards and inwards towards the head of the humerus. The sinuses were slit up, and an opening, the size of a lead-pencil, found in the bone, just below the greater tuberosity of the humerus.

This opening, extending into the medullary canal, was enlarged, and the carious bone removed. Both bone cavities were lightly filled with small bits of sponge in a piece of compress, retained by a bandage.

3. *Removal of Toe-Nails.* — The patient was a man forty-five years of age. The nail on each great toe was thickened, rough, ridgy, and scaly; of a dirty yellow color, and so loose as to be easily removed. The patient was anxious to get rid of them, as the pain and tenderness were a great annoyance. Dr. Cheever removed the nails along with a good strip of the skin and flesh over the matrix. The matrix itself was then thoroughly removed with a rose-drill, in the hopes of preventing the future growth of the nails.

The disease was supposed to be of a parasitic nature — the *onychia parasitica* of Tilbury Fox. GEO. W. GAY, M. D.

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ADHERENCE OF PREPUCE AND GLAND IN INFANTS.

MESSRS. EDITORS, — I cannot deny myself the pleasure of translating the following article from the *Archives Générales de Médicine*, because it confirms completely the observations of my friend and respected master, Dr. J. B. S. Jackson. His conclusions in regard to the subject of this article were made many years ago, and surprised many anatomists and surgeons, who could scarcely credit the statements until their own repeated examinations demonstrated the truth of them.

Several years ago, while sitting beside Mr. Haward at the Ormond Street Hospital for Children, in London, a number of young children (four or five) were presented for operation for phimosis. Before the operations were commenced I stated to Mr. Haward the observations of Dr. Jackson, and said that I believed that adherences of the prepuce to the gland would be found to exist in these children. Mr. Haward had not heard of the fact, and was much interested to demonstrate there and then its truth. To the best of my recollection the adhesions were found to exist in nearly if not all of them. The article in the *Archives Générales* is as follows: —

"It was in January, 1860, that there appeared for the first time, published in the Hungarian language, the results of the researches of Jean Bókai on the affection which he designated under the name of cellular adherences between the prepuce and gland in young children.

"M. Bókai attributes the adherence of the prepuce to purely physiological causes. It is only under very exceptional circumstances that it may be of pathological origin. It is due to the intimate and continual contact which in the fœtus exists between the most superficial epithelium-cells which line the prepuce and cover the gland. In this situation the cells need a long time to take on their normal consistence. To this influence is added that of the liquids which constantly moisten the epithelium of those mucous surfaces, and thus favor adhesion. These conditions are maintained for some time after birth, and to a more or less later period according to the case. They diminish in importance as the child advances in age.

“The author has carefully observed one hundred children, thirty of the being from five hours old to six months. Of this number twenty-t presented adherence in its highest degree. Of twenty infants from sev months to a year old, nine had extensive adherences. Fifteen from one two years old furnished five well-marked cases of adherence. Of sixte children whose ages varied from two years to three years, only three present the condition described. Between the ages of four and seven years, in elev children only one case of extensive adherence was found. Finally, in eig between nine and thirteen years old no case of adherence was found. Wi all the other children, objects of this research, there existed a feeble degree adherence.

“The author divides the cases which he has observed into three classes. the first degree (or class) the adherence, which commences at the crown (edge) of the gland, extends backwards, most often with preservation of t normal width of the prepuce. In the second class the adherence commen at the centre of the gland and extends to the posterior parts; the prepuce l its normal length and width. In the third class, the adherence, which sta from the apex of the gland, passes to the furrow which is behind the crov In the latter case the newly born children frequently present an obliteration the meatus of the urethra. In each of these classes there is pain when t prepuce is drawn beyond the line which these adherences limit. If these torn away, the surface thus uncovered is of a bright red color, and when t union is intimate there is a little blood effused. The furrow behind t gland is filled with caseous matter, which is with difficulty removed.

“The author attributes the accumulation of this caseous matter to the peated pullings of the prepuce, to the superficial ruptures these produce, to t blood which is the consequence of them, and to the consecutive inflammati of the foreskin. Finally, the difficulty of micturition ought to awaken t attention of the surgeon to the possible existence of these adhesions. regard to treatment, and notably that by surgical intervention, M. Bók observing that the disorder has a certain tendency to correct itself accordi as the infant advances in age, objects to all operation by cutting instrume whenever the affection is not due to a purely pathological cause, when there not retention of urine, or when a balanitis is present. The adhesions a easily destroyed by retracting the prepuce with one hand, whilst a bl dissector held in the other one, separates them. The author has never h occasion to employ a cutting instrument. In cases where a partial spontane separation of adhesions in one part, with those in another still preserved, h given rise to cul-de-sac cavities, he has succeeded in destroying the union means of water forcibly injected into the preputial cavity. The adherences o destroyed, the caseous matter is taken away, the surfaces heretofore confound are cleansed, and the prepuce is brought back to its normal position, bei first covered with oil. If the rupture of the adhesions has caused hæmorrha this is stopped by compresses wet in cold water.”

One is tempted in this connection to pursue this subject in reference to adhesion of the labia in female infants, and to the efficacy of the dissector probe in destroying them.

W. C. B. Fifield.

WEEKLY BULLETIN OF PREVALENT DISEASES.

The following is a bulletin of the diseases prevalent in Massachusetts during the week ending April 10, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire: bronchitis, rheumatism, and pneumonia. A marked decline in prevalence of diphtheria has occurred. Small-pox has disappeared from Lee.

In the Connecticut Valley: influenza, bronchitis, and pneumonia. In Springfield and Chicopee diarrhœa is extensively prevalent. Typhoid fever is quite common.

In the Midland section: bronchitis, influenza, rheumatism, and pneumonia. A noteworthy subsidence of measles and scarlatina has taken place. One case of cerebro-spinal meningitis in Clinton is reported, the patient being a child living in a low and ill-drained locality.

In the Northeastern section: pneumonia, bronchitis, influenza, rheumatism, and scarlatina. The small-pox case in Reading has extended the contagion to only one other person. One case of cerebro-spinal meningitis in Lynn. Scarlatina is increasing in this section.

In the Metropolitan section: bronchitis, rheumatism, pneumonia, scarlatina, and measles. Scarlatina and pneumonia have increased in prevalence; all the other diseases are less rife.

In the Southeastern counties: pneumonia, rheumatism, bronchitis, and influenza. Fall River continues to report cases of small-pox.

In the State at large there has been a marked decline of sickness during the last week, all the diseases except pneumonia being reported as less prevalent. The prevailing type has been mild.

Measles and scarlatina are most prevalent in Boston and its vicinity.

F. W. Draper, M. D., Registrar.

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COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING APRIL 3, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	565	28
Philadelphia	775,000	387	26
Brooklyn	450,000	196	23
Boston	350,000	150	22
Providence	100,000	28	15
Worcester	50,000	17	18
Lowell	50,000	23	24
Cambridge	44,000	25	30
Fall River	34,200	20	30
Lawrence	33,000	15	24
Springfield	33,000	4	6
Lynn	28,000	10	19
Salem	26,000	11	22

Military Appointments. — Dr. John L. Hildreth, of Cambridge, appointed Surgeon of the Fourth Battalion of Infantry, M. V. M., *vice* Bodge discharged by reason of change of battalion commander.

Dr. William J. Clark, of Milford, appointed Surgeon of the Tenth Regiment of Infantry, M. V. M., *vice* Hildreth discharged by reason of change of regimental commander.

Dr. Frederick H. Thompson, of Fitchburg, reappointed Assistant Surgeon of the Tenth Regiment of Infantry, M. V. M.

The above named gentlemen passed a successful examination before the Board of Medical Officers, M. V. M., April 9, 1875. Edward J. Forster,
Surgeon Fifth Regiment of Infantry, M. V. M., Recorder of Board.

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Boston Society for Medical Observation. — The next regular meeting will be held on Monday evening, April 19th, at eight o'clock. Dr. Frederic W. Vogel will read a Report of a Case of Measles. Dr. Ellis will read a paper on Capillary Bronchitis in Adults; the Frequency of its Complication with Changes in the Air Vesicles, and its Relation to Catarrhal Pneumonia.

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Books and Pamphlets Received. — The History of the Philadelphia School of Anatomy, and its Relations to Medical Teaching. A Lecture delivered March 1, 1875, at its Dissolution. By W. W. Keen, M. D. 1875.

Elephantiasis of the Penis from Stricture of the Urethra; Amputation. By Robert F. Weir, M. D.

Roosevelt Hospital, New York. Third Annual Report. 1875.

Charter, List of Officers, and By-Laws of the Cambridge Dispensary. 1875.

Report of the State of the New York Hospital and Bloomingdale Asylum for the Year 1874. New York. 1875.

Third Annual Report of the Dispensary for Skin Diseases. Boston. 1875.

Fifth Report of the New York Ophthalmic and Aural Institute. 1875.

Health: A Handbook for Households and Schools. By Edward Smith, M. D., F. R. S. New York: D. Appleton & Co. 1875. Pages 198.

A Practical Treatise on the Diseases of the Eye. By Haynes Walton, F. R. C. S. Third Edition. Philadelphia: Lindsay and Blakiston. 1875. (For sale by James Campbell.)

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A Caution. — Members of the medical profession are cautioned against an Englishman, known as Joseph Kerr, *alias* Herbert Kerr, *alias* Stanley, "son of Dean Stanley," who has already paid a visit to several physicians in Boston, and may call on others. He represents himself variously, as a recent practitioner in London, as an interne of St. Thomas's Hospital, and surgeon of a Cunard steamer; as about to seek employment or engage in practice in America, etc. He claims to have letters from Sir William Gull and other members of the profession in England, and refers to a well-known English merchant in this city, and to an Episcopal clergyman. It is sufficient to say that his statements have no foundation in truth.

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ATTENTIONS TO THE NEW-BORN CHILD: CONGENITAL DEFORMITIES.

NOTES OF A LECTURE AT HARVARD MEDICAL SCHOOL.

BY CHARLES E. BUCKINGHAM, M. D.,
Professor of Obstetrics.

MORE especially with the child of a first pregnancy, it will be a little remarkable if you are not asked, even before the child is separated from the mother, "Is it perfect? Are there any marks upon it?" These questions I always answer, "I have not had time to examine yet." Indeed, I never intend to examine until after the placenta has been removed. If there be any malformation, too early announcement of it may be productive of fatal result to the mother. A hæmorrhage caused by depression, consequent upon unpleasant news, is by no means uncommon; and a hæmorrhage, even a slight one, may unexpectedly result fatally. Concerning what are usually called mother-marks, the result of so-called "longings," or of frights during pregnancy, I assure you that I never yet saw one when I had asked, previous to the delivery, if anything of the kind were anticipated. For years it was my habit to ask the question before labor began, "if any marks were expected." Never but in one instance did I have an answer in the affimative which was followed by any appearance like that which was expected. The case was this. Mrs. —— said to me that when about six months pregnant, while she was at the theatre, a man upon the stage was apparently shot just above the nose, and the blood flowed from the spot. She knew that her child was marked by it. To my astonishment, when the baby was born, there was a red spot covering the lower part of the forehead, between the eyes and down upon the nose. Of course, I had no explanation to make. On the following day, however, the patient's mother relieved me very much when she came into the room, uncovered the little one to look at it, and exclaimed, "Why, Eliza, she 's got just such a mark as you had when you were born." It was an inherited spot, and, like very many of these marks, faded away as the child grew older. I have seen spots of all shapes and shades, red and brown and even green in color, but I never yet saw one when and where it was expected, if the mother were questioned in advance. If the matter were left till after the labor was over, there has always be an explanation found.

As a rule, one of these spots is of very little consequence, even wh there is a moderately large plexus of vessels forming it. They are ve apt to fade out towards the close of the first dentition, although l entirely alone. In some cases, it is true, they are so vascular as to dangerous if in exposed situations; unless they are so situated, a are quite large, my advice would be to let them alone.

There are certain malformations, however, which should be attend to early. There is, for instance, the imperforate anus. This is som times simply covered by a fold of skin, which being perforated ever thing goes on well enough. Sometimes there is an obstruction abo the sphincter, which may easily be overcome. Sometimes there is want of connection between the lower and the upper parts of the r tum, the communication from above being with the urinary bladder. have operated with success even in one of these cases, and I kn that the child lived to the age of puberty, apparently well. During t past few years I have heard nothing of him, as he has removed from t city.

The hare-lip is another abnormity which sometimes requires ver early attention. The time for interference is of course dependent upo the amount of deformity. The existence of supernumerary fingers or toes may render it necessary for you to know and speak early. Strabismus to a certain extent is not very uncommon; but very often indeed what is seen is a general weakness of different muscles, rather than a positive shortness of any one muscle, and it usually rectifies itself if let alone. But all of these affections, as well as the different forms of club foot, which can generally be treated early with success, and without operation, are matters to be spoken of elsewhere.

I cannot avoid speaking, however, of one matter which more than half of the young mothers are troubled about. That is tongue-tie; the short frænum of the tongue. It is very frequently spoken of by nurses, often asked about by mothers, and yet it very seldom has existed to a degree requiring interference in patients who have fallen under my observation. Want of patience with a child who has been unseasonably and improperly fed, and who consequently finds it easier to swallow from a spoon than to nurse from a nipple — this is the history of most cases of supposed tongue-tie. If the child, when you put your little finger in its mouth, can draw upon it, there is no tongue-tie. If the child, when you are examining it, after feeding gapes and puts its tongue upon the lip, or draws it back so that you can see the frænum, there is no tongue-tie. If there be a tongue-tie you will find, when you open the little fellow's mouth, that the organ is not only bound down to the jaw, but also that it has the appearance of being stitched through vertically, as it were, so as to look as if there were a bisection of it.

One word more concerning abnormities and deformities at birth. "Doctor," once said a man to me, "if my child is not perfect it must not live." I find that I am not the only one to whom this, or something equivalent, has been said. It is not for you and a father to estimate the amount of deformity that a child is to be permitted to live with. The object of the physician is to save life. In the practice of the best qualified of us there will be sometimes errors of judgment, and with a large practice only the most conceited and ignorant man would say that he has never lost a patient who might have been saved. It is hard enough for us to know this; but deliberately to listen to a proposal to let a child die is only one step on the road to a worse crime. What course should you take? Why, put on your hat and bid the premises "good morning."

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A RECENT EXANTHEMA; WHAT IS IT?[1]

BY CHARLES W. SWAN, M. D., OF BOSTON.

The following cases have been observed in rapid succession, principally at the South End of Boston, in the practice of two physicians. Others are now reporting similar cases, and there is no doubt that the disease, whatever one may choose to call it, is epidemic. It is proposed to offer the specimens before proceeding to a consideration of the claims of this form of exanthema to a distinctive name.

Case I. — Girl aged eleven, seen February 9th. The report was that she had taken cold on the 5th from exposure in thinner dress than she had been accustomed to wear. On the evening of that day she complained of feeling cold. The next day, the 6th, there was a maculate eruption on the neck, anteriorly; in the evening it was observed on the legs; on the morning of the 7th it was general and very abundant, and on the morning of the 8th it had almost entirely disappeared. Many of the points were described as of the size of a pinhead, and the skin was slightly roughened. With the eruption came a puffy, swollen appearance about the eyes, and immediately after the skin became clear again there came complaint of stinging pain and tenderness in numerous posterior cervical lymphatic glands, which were moderately but very perceptibly enlarged; and following close upon this was sore throat. A very slight cough began and continued with the other symptoms, the eyes were watery, but there was no running at the nose. The patient was not confined to bed, and the appetite was simply somewhat impaired. At the visit on the fourth day of the disease, the fauces and soft palate were reddened, and the latter exhibited numerous raised, reddish points. The tongue was nearly clean. The principal complaint was of the enlarged glands of the neck, but the tenderness o these had already begun to subside.

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[1] Read before the Boston Society for Medical Observation.

On the 24th, eighteen days from the beginning of the attack, the appearance of the throat was much the same, and the lymphatic glands had not yet fully subsided, although there was no longer complaint o either.

Four years ago this patient had well-marked measles, followed, after a short interval of apparent health, by mumps. She had never had scarlet fever.

Case II. — Girl aged three years. She was seen February 20th. It was reported that two days before, the 18th, she had had an eruption on the neck and back, and on the 19th a decidedly red, blotchy eruption on the face. From the description it was rubeoloid, except that the precise form of the blotches had not been noticed. The eyes were pinkish and watery; no running at the nose. The eruption was n over twenty-four hours in duration, and it began with the other symptoms. The slight dry cough which was present did not precede th eruption. There was no dysphagia. Numerous posterior cervic glands were enlarged, and there was a lumpish feeling under the rig jaw. There was a little puffiness about the eyes early in the attack. She was not much sick at any time. The appetite was only slightly impaired. Two years ago this patient had well-marked measles, preceded by chicken-pox.

In the same house with the patient just described are two children whose histories are as follows: —

Case III. — A well-nourished boy, seventeen months old, had a maculate eruption February 10th. It was in the form of small dots, and was slightly rough to the touch. The color was paler and less intense than that of ordinary measles. When discovered, in the morning, it was already general, excepting, perhaps, the feet. It was nearly gone on the Friday or Saturday following, but for some time afterward faint spots were visible when the child cried or awoke. There were no prodromata. After the eruption appeared the child was a little restless and hot for two nights, but in the day-time he did not behave at all like a sick child. The catarrhal symptoms, if any, were very slight. No enlargement of the posterior cervical glands was observed. There was no desquamation.

This same child began to cough February 25th, two weeks after the appearance of the above-described eruption, and on the following day, the 26th, there was a spotted eruption on the neck, and on the 27th a nearly general breaking out, the legs alone being unaffected. The whole aspect of the case was that of common measles. Some of the maculæ were distinctly crescentic. The scalp was invaded. The fauces were reddened, and the catarrhal symptoms were quite promi-nt. Moreover, the child was now sick.

Case IV. — Sister of the preceding patient, aged eight years. This little girl had scarlet fever, without eruption, at the age of three; that is, there were at the time well-marked cases of scarlet fever in the family. There was moderate sore throat, and dropsy followed.

When measles occurred in the family a year and a half ago, this patient had slight catarrhal symptoms, but no rash. Six weeks ago she had a rash which lasted four or five days. It was maculate and in general features resembled measles, but it was the first symptom of disease, the child having been perfectly well up to this time. With the eruption the eyes were but slightly affected, and the general health and appetite were almost as good as usual. When the eruption declined, cough appeared, and some running at the nose followed. There was no desquamation. The patient, subsequently to this attack, did not appear to have quite her usual vigor, and on February 15th, about a month after the disease above described began, she had an eruption of true measles. This was preceded for two days by cough, and for a week by some nasal discharge, which was at times slightly bloody. The catarrhal symptoms began to subside when the eruption reached its height, but traces of a well-developed attack were visible on the date of the visit, February 27th. On that day were enlarged posterior cervical glands of unknown duration, and a circumscribed swelling of four days' duration under the right jaw.

Dr. C. E. Buckingham, of this city, has kindly furnished me with the following brief notes of similar cases occurring in his own practice.

Case V. — February 13th; a boy, aged nine. Breath offensive. Eruption on face somewhat like measles, more distinct, not crescentic. Stomach somewhat disturbed. Enlarged posterior cervical glands. Have seen this child with the same eruption twice before.

Case VI. — February 14th; a girl, aged five. Had measles within a year. Never had scarlet fever. Has had an eruption without any other sign of sickness, except a slight collection of tears, for thirty-six hours past. It looks like neither measles nor scarlatina. It is in all parts of the body, in points larger than scarlet-fever points, but not shaped like measles. No soreness of the throat. Appetite good. Tongue clean.

Case VII. — February 15th; girl, fifteen years old. Was well on the 13th. Headache with slight nausea on the 14th, and in the evening a slight eruption came on the face, which to-day covers the entire body, and is also to be seen in the throat. It is more distinct than the eruption of scarlet fever, smaller than that of measles, and not crescentic. No appetite of consequence until supper-time yesterday. To-day, ate a good breakfast.

Case VIII. — February 15th; girl, aged nine. This child is broken out precisely as in the preceding case.

Case IX. — February 24th; boy, fifteen years old. Slight red eruption on the cheeks and behind the ears, a few spots only, rather rou and not at all crescent-like. Eyes slightly troublesome. Appeara in the throat is that of scarlatina, which disease he has had. Soft p ate shows raised red points; posterior pharyngeal wall red. No wh patches on tonsils. A little dysphagia and slight fever on the morn of the eruption, but neither symptom at visit in the afternoon. Pos rior cervical glands slightly enlarged and tender. But little appet No sneezing. No prodromata. Has had measles. There was no s sequent visit. At the time of this attack the patient was nearly o an attack of acute bronchitis, which was attended with an elonga uvula.

Case X. — Girl, aged six. Seen March 1st. Has never had sca fever. Had measles five years ago. Abscess in the right ear br February 27th, and a small boil on the left cheek broke yesterday. eruption came out to-day on face, arms, and whole trunk, rubeoloid appearance, not crescentic. No cough. No trouble in eyes. Thr scarlet-fever-like. Tongue clean at tip and edges; no enlarged papil Posterior cervical glands enlarged. Appetite better this morning th it has been. Pulse 120. No thirst.

Case XI. — Girl, aged six. Seen March 7th. Under the weat since the 4th; appetite poor during that interval, but it has return to-day, and seems ravenous. Three spots noticed on the face on the 6 To-day, patient is broken out with points all over face and body, bo back and front; on the face the points run together; the eruption is le on the thighs, very little on the legs, moderately on the arms and hand palms not affected. Occasionally broad round blotches, and infrequentl on the face a large crescentic patch. Back looks more like scarlet feve in its form. Throat red generally. Tongue white, but without th enlarged papillæ of scarlet fever. A very few enlarged but small cer vical glands posteriorly. Eyes slightly injected. No cough. No râle No puffiness about face or eyes. Pulse less than 80. Skin cool. Bowel in good order. Patient had measles two years ago; never had scarle fever.

Remarks. — If we group the most obvious and constant facts in th foregoing cases we have: a maculate rash of short duration, very sligh catarrhal symptoms, little constitutional disturbance, no prodromata, a epidemic occurrence among children. In addition to these we may not the frequent occurrence of the following symptoms: sore throat; en larged and tender posterior cervical glands; a pale red, dotted, and no crescentic eruption, suddenly general in its appearance, or rapidly extend ing from above downwards, or, it may be, limited to the face; impaire appetite, or nausea; lachrymation, puffiness about the eyes, slight irri tation of the conjunctiva; moderate discharge from the nose; trivia cough.

The catarrhal symptoms were never severe, and part or all of them were sometimes absent. They never preceded the rash. The sore throat, if present, was moderate; there was some dysphagia, with redness of the fauces, and in some cases a punctate redness of the velum palati. In the first case reported, the posterior wall of the pharynx was coarsely papulate or uneven for several days. The numerous enlarged posterior cervical glands were noted in seven of the eleven cases, and were sometimes a subject of chief complaint. There is no proof, except of a negative character, of the absence of these in the remaining cases. The eruption was slightly crescentic in one case only out of seven carefully examined for this character. In other respects there was a notable similarity in form, the spots being generally discrete, finer than those of measles, coarser than the fine dotting of scarlet fever, paler than either in color, and not followed, so far as observed, by desquamation. The rash was generally the first noticed symptom; but in one case the patient complained of cold the evening preceding the eruption; in another there was headache and nausea in the morning, the efflorescence occurring in the evening of the same day; in a third case there was slight sore throat the day before the eruption, and in another the child had been "under the weather" for about three days, but without specific symptoms.

With scarcely an exception there was no disposition on the part of the patients to lie abed, or even to remit the ordinary amusements. The fever, if any, was very slight. No vomiting was reported. The tongue was sometimes clean, sometimes moderately coated; there were no enlarged papillæ.

Previous diseases were, in six of the eleven cases, measles; in two, scarlet fever; in one, varicella; of these, one (IX.) had had both scarlatina and measles, one (I.) measles and mumps, one (II.) measles and varicella, and in one case the child had had "the same eruption twice before." In two children, brother and sister, living together (III., IV.), the disease was *followed* by well-marked measles, in sixteen days and four weeks respectively.

In eight of the first nine cases reported the rash appeared between the 6th and 24th, inclusive, of February. The earliest occurrence noted was January 16th, and the latest, at date of writing, March 6th. Eight of the patients were girls and three were boys. The ages were from one and a half to fifteen years.

It is not proposed to draw a finer comparison than has already been made between this group of imperfectly described cases and the eruptive diseases which they resemble. A differential diagnosis will hardly be found in a very close examination of any one of the individual features of a single case. But a comprehensive survey shows a series of unselected cases so consistently related to each other in symptoms, degree and course, and in time and place of occurrence, and also so consistentl different from the types of scarlet fever and measles, as to appear, whethe considered alone or in comparison, *sui generis*, having a type of thei own, namely, that of rubeola (rötheln, German measles), as describe by the authorities. In the cases in question there is an unexpected suddenness of efflorescence, a prominence of throat symptoms, a degree o glandular affection, an absence of prodromata, a peculiarity in the form of the maculæ, an independence of the prophylactic power of measles all of which characteristics are in more or less *direct* opposition to th view that this is simply a mild form of measles; while the absence o many of the peculiar features of scarlatina — as, for instance, the condition of the tongue and palate, the eruption, desquamation, absence o catarrh, occurrence of prodromata — makes it quite as little likely tha we have to do with a modification of the latter disease. The differenc in kind, in other words, is strong, as well as the difference in degree In favor of the name roseola is the appearance and ephemeral characte of the eruption; but this disease, or phenomenon, so abounds in variet of causes, that, to be accurate, one might be compelled to use the term "epidemic catarrhal contagious roseola" to express his idea.

The account of rubeola in Ziemssen's Cyclopædia is complete an satisfactory, and may be supposed to represent the present state of knowledge upon the subject. The description of an epidemic or epidemic in the vicinity of Boston several years ago, by Dr. Cotting,[1] evidentl comprehends the same disease, and gives it the name of "Germa measles." There is also an account of an epidemic in New York, i 1873–74, given by Dr. J. Lewis Smith in the *Archives of Dermatolog* for October, 1874.

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RECENT PROGRESS IN PATHOLOGY AND PATHOLOGICA ANATOMY.[2]

BY R. H. FITZ, M. D.

PATHOLOGY.

The Origin of Giant Cells. — These bodies, first discovered by Robin in bones, and called by him "plaques à plusieurs noyaux," have attracted considerable attention, more particularly on account of their supposed intimate connection with tubercles, of which they are so frequently found to be a constituent.

Friedländer[3] gives a detailed account of their appearance under normal and pathological conditions, and explains at some length his idea of their relation to tuberculosis. He admits that they may arise from the enlargement of epithelial and endothelial cells, associated with an increase in the number of nuclei; also during the acute atrophy of fat tissue with a like increase of nuclei, as observed by Flemming.

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[1] Boston Medical and Surgical Journal, 1873, lxxxviii. 485.

[2] Concluded from page 443.

[3] Berliner klinische Wochenschrift, No. 37, 1874.

Though the fact is accepted that they may be present within vessels, Friedländer does not accept the theory of their origin in such places. In tubercles, particularly, such has not been demonstrated, despite the many attempts to prove their origin here from the endothelium of the blood and lymph vessels. Wandering giant cells have been discovered in bones by Rustitzky, and Friedländer has observed an active change of shape in those present in tubercles.

Ziegler[1] has been able to produce these giant cells from white blood corpuscles. Small pieces of glass of various shapes were taken, their edges and angles rounded, and a bit of thin glass of corresponding size was so cemented between the plates that a capillary space was obtained, freely accessible from without. These were then placed beneath the skin and the peritoneum of dogs and rabbits, or were carefully introduced into one of the great cavities of the body, with the idea that the white blood corpuscles might enter the space between the pieces of glass and undergo certain changes. It was expected that at the outset nutriment might be derived from the surrounding lymph, and that later the new formation of vessels might take place, and thus eventually a fibrous tissue be formed. Should such an event occur, it would be certain that the white corpuscles had served as the formative material.

After numerous experiments his expectations were realized. The plates usually remained in position from ten to twenty-five days, were then removed, exposed to staining fluids, and were eventually preserved in glycerine. In all cases white corpuscles entered the capillary space, and underwent retrograde or progressive changes. The latter were twofold in character, and consisted in the formation of a reticulated tissue containing epithelial cells and numerous giant cells; the resemblance to the structure of tubercle was most striking, and when the giant cells occurred vessels were not found. The other change was due to the formation of connective tissue and vessels.

From the similarity of the results of the first change to certain forms of tubercles, Ziegler concluded that the tubercle with its giant cells is an inflammatory growth in which the white blood corpuscles collect at certain points (probably intracanalicular), and become peculiarly developed. This seems to be dependent upon a feeble nutrition of the cells, since the same does not suffice to form a new connective tissue. The giant cell is therefore regarded as the incomplete new formation of cells.

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[1] Centralblatt für die medicinischen Wissenschaften, No. 51, 1874.

Jaundice. — Legg[1] and Audigné[2] have made experiments with reference to mechanical jaundice, produced by the ligature of bile-ducts, the former on cats, the latter on dogs. The cats died within twenty days, but not from peritonitis. Conjunctival jaundice came on late, from ten to fourteen days after the operation. The urine was not tested for bile-pigment, as that of cats and dogs often contains the same under normal conditions. Audigné states, however, that it becomes evident in the urine within two or three hours after the obstruction o the excretory ducts, though jaundice of the skin is appreciable only some time after the appearance of the pigment in the urine.

Legg observed that the sugar was absent from the urine, puncture o the fourth ventricle being made on the sixth day after the ligature o the ducts. He states further that the interstitial tissue of the live became increased after this experiment, and that the liver-cells wer atrophied but not particularly pigmented.

Nothnagel[3] found casts in the urine of jaundiced persons, the icteru being marked, and bile-acids present. These casts were generally hyaline, varying in shape and size, but were not colored yellow. Albumen was present or absent.

Feltz and Ritter[4] injected fresh bile into the veins of animals, an observed the following effects: —

Tetaniform convulsions, followed by coma, loss of sensibility, a death, when the doses were large; a slight diminution of the pulse, a a falling of the temperature from one to two degrees; decided sali tion, bilious vomiting, and, at times, bloody diarrhœa. Fat globules, a an increase of fat and cholesterine were found in the blood; the blo corpuscles showed a tendency to run together, and when shaken wi oxygen would not take up so much as usual, though the oxygen w diminished, and the carbonic acid increased. The amount of urine w increased, but contained albumen and biliary coloring matter on when very large doses were given; soon after the injection the uri regularly contained a substance strongly resembling indican; when th animal died early, the urine was of a bloody color from the presence soluble blood coloring matter.

PATHOLOGICAL ANATOMY.

Results of Injury to the Brain. — Nothnagel[5] states that by injury certain portions of the surface of the brain of rabbits (in the vicini of the furrow upon the same) by means of a needle, hæmorrhages in the lungs occur. These are often so extreme that almost the entire lung is affected. The observations of Brown-Séquard relate to injuries to the base of the brain. Further, a meningitis can regularly be produced; such is usually double, rarely upon only the side of the injury, at times upon the other half alone.

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[1] St. Bartholomew's Hospital Reports, ix. 161.

[2] Gazette Médicale, No. 1, 1874; Revue des Sciences Médicales, iv. 103.

[3] Deutsches Archiv für klinische Medicin, 1873, page 326.

[4] Comptes Rendus, lxxviii. 1445; Centralblatt für die medicinischen Wissensch li. 814.

[5] Centralblatt für die medicinischen Wissenschaften, 1874, page 209.

Hypertrophy of the Brain. — Landouzy[1] reports the case. The child, ten years old, well developed, and intelligent, had never had paralysis nor convulsions; possessed an enormous skull with closed sutures and fontanelles. The brain fitted the skull completely; its convolutions were flattened, the membranes normal, the ventricles narrow. The cerebral substance was very heavy; from the greater development of the frontal and sphenoidal lobes the convexity of the brain was greater in front than behind. All the diameters of the brain were increased, and its weight was nearly nine ounces more than that of the brain of an adult.

The various parts of the brain were apparently normal and proportionally developed. The microscopic examination presented nothing abnormal.

The child was born with a large head, walked at the age of fourteen months, learned to talk at the usual time, and no disease occurred which could be considered a cause for the hypertrophy. Hence a congenital disposition to hypertrophy of the nervous tissue must be accepted.

Lung destroyed by Phthisis. — The case is recorded by Clark.[2] The left half of the thorax was very much diminished in size, and was filled by the emphysematous right lung, the heart, and a hard mass — two and a half by three inches — " lying against the side of the spinal column, between the second and fourth ribs, firmly adherent to the posterior portion of the thoracic wall." This mass was composed of cheesy matter, pigment, the remains of smaller bronchi, and fibrous tissue covered by a smooth membrane, the thickened pulmonary pleura. A large bronchus proceeded from the mass, but the remains of the lung could not be inflated through this, and there was no evidence of air cells. The right lung was tuberculous; also the left parietal pleura. There were tubercles of the liver and spleen. The right ventricle was soft and flabby; a nodule of hæmorrhagic infarction was found in the liver.

Hypertrophy of the Heart. — Zielonko[3] has studied experimentally this condition, as well as that produced by direct irritation of the heart. A ligature was placed about the aorta of frogs and rabbits, or a needle was introduced into the wall of the ventricle. The latter method in many cases was without result. The enlargement of the heart was determined by measurements, and by means of the microscopical appearances.

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[1] Gazette Médicale, 1874, No. 26; Centralblatt für die medicinischen Wissenschaften, 1874, page 826.

[2] The Medical Record, 1875, page 1.

[3] Virchow's Archiv, 1874, lxii. 29.

The question then arose whether the hypertrophy was due to the enlargement of already existing cells, or to a new formation of cells, or to both causes. The results of the observations enabled him to state that when the aorta of frogs was constricted by a ligature and but little inflammation followed, an enlargement of the heart was present, due to an actual increase of the muscular substance. Such an increase is relatively greater in young frogs than in old ones. The enlargement is not due to an increase in the size of all the cells, rather to an increased growth of young cells and an increase of free nuclei. The only conclusion from the experiments on the rabbits was that an increase of the cardiac muscle of a certain rabbit was not due to an enlargement of all the cells.

He further endeavored to ascertain the relation of the muscle to nutrition, to the age of the individual, and to the work accomplished by the muscle. The last two factors were determined by measurements of corresponding muscle-cells of fœtuses, children, and adults, and of those from the less active muscles of the same individual.

The effect of nutrition was determined by measurements of the diameters of the fibres from the relatively inactive auricular muscles of decrepit women and well-nourished men of the same age. He concluded that, though the work accomplished by the muscles may influence the size of their fibres, nutrition and age are of much greater influence. A diminution of the diameter of the muscle-cells is alone sufficient to explain the diminished volume of the heart in atrophy.

The size of the muscle-cells of the heart depends on age, general nutrition and inflammatory processes in the heart, and is not increased in hearts hypertrophied from additional work. It is further suggested as possible that hypertrophied hearts found in aged people date rather from an earlier period of life, and that dilatation of the heart alone takes place in old age.

Primary Sarcoma of the Thoracic Aorta. — A case regarded as one of this nature was observed by Brodowski.[1]

The tumor was seated in the posterior mediastinum, intimately adherent to the aorta and surrounding the same, but easily separated from the œsophagus, diaphragm, pleura, and vertebræ. The growth seemed to belong to the external coat, though the interior was correspondingly altered, the two being separated by the middle coat, which was very much thinner than normal, having undergone sarcomatous degeneration. There was no evidence of secondary nodules in the thorax, but in the abdomen they were very numerous, not only upon the peritoneum but in the gastric and intestinal mucous membrane, in the spleen, kidneys, liver, and pancreas. The tumor presented the structure of a spindle-cell sarcoma, and the nodules in the abdominal organs were regarded as of embolic origin.

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[1] Wiener medizinische Presse, 1874, page 214.

Pancreatic Hæmorrhage a Cause of Sudden Death. — At the last annual meeting of the German naturalists and physicians at Breslau, Zenker[1] reported three cases of hæmorrhage into the pancreas. The first was that of a man aged forty-eight years, who, previously well, awoke with a feeling of nausea and discomfort, and died within a few minutes. The only anatomical explanation of sudden death found at the autopsy was a marked hæmorrhagic infiltration of the entire pancreas and the neighboring connective tissue, together with hæmorrhage into the duodenum. The pancreas also presented an extreme degree of fatty degeneration.

The second case occurred soon after. A man aged twenty-eight years, an epileptic, though otherwise apparently healthy and able to work, was found dead in the forest, where he had been seen an hour before, gathering wood. His body furnished no evidence of violence, and at the autopsy an extensive hæmorrhagic infiltration of the pancreas was the only essential alteration. This organ was fatty degenerated, but less so than in the previous case. Both individuals were very fat.

The third case was that of an elderly man, also very fat, periodically prone to drunkenness, who was taken dead from the water. The autopsy gave no evidence of death from drowning. Here, too, hæmorrhage and fatty degeneration of the pancreas and blood in the duodenum were found, and marked hyperæmia of the semilunar ganglion was observed. The habits of the individual with reference to the place where he was found favored the idea that his death was not suicidal but due to his falling into the water while in a dying condition.

The loss of blood alone was considered an insufficient explanation ot death in these cases, particularly in the first two. Though in the first case the semilunar ganglion was not examined, it was thought as likely that death resulted from shock through nervous action, such as occurs when the abdomen is exposed to mechanical violence.

Attention is called to Fischer's use of Goltz's experiment in the explanation of shock, where paralysis of the heart is produced by blows upon the abdomen of the frog.

Zenker thinks this explanation is favored by the fact that in the second case the heart showed the same conditions as the frog's heart. The immediate cause of death is thus to be regarded as a paralysis of the heart, whether directly or indirectly produced. The medico-legal importance of the examination of the pancreas where sudden death occurs is suggested by the third case.

Congenital Absence of the Kidney. — Watson[2] noted the entire absence of the right kidney and ureter. In the bladder there was no evidence of an orifice for the ureter. The left kidney was lobulated, not enlarged, and was situated close to the brim of the pelvis, in front of the common and external iliac arteries. The left ureter was larger than normal, particularly near the kidney. The left renal artery arose from the bifurcation of the aorta.

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[1] Allgemeine medicinische Central-Zeitung, 1874, page 1213.

[2] Edinburgh Medical Journal, 1874, page 13.

In the same article is described an atrophied kidney of the size of a large bean. The left kidney of the same individual weighed nine and one half ounces. The atrophied organ was composed mainly of dense fibrous tissue, with occasional tubes, larger in calibre than the ordinary renal tubules. Well-developed Malpighian capsules were rarely observed. The ureter was pervious at its entrance into the bladder, became fibrous near the kidney, and was lost in the loose subperitoneal tissue before reaching the atrophied organ.

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CARPENTER ON MICROSCOPY AND FREY ON HISTOLOGY.

THE demand for a fifth edition of Carpenter's work[1] shows how widely the interest in microscopy has spread. Professor Carpenter is entitled to many thanks for his share in bringing this about, and we are glad that he is reaping a substantial reward. This new edition is a marked improvement on the preceding ones; it is handsomely got up, and is heartily to be recommended to the class for which it is written — amateur microscopists. It is not meant for advanced students, nor for those wishing to study the minute elements of animal tissues, but it is excellent for those who would acquire some general knowledge of structure. It opens the road to almost all parts of the animal and vegetable kingdoms, giving enough information to satisfy those who wish to play and to stimulate those who wish to work. Our criticism on the work as a whole is that too large a portion of it is devoted, not to what is seen, but to the way of seeing it. We do not seriously object to the part on optics, though we think most of it superfluous. We heartily indorse the remarks on the care of the eyes and of the microscope, but we object decidedly to about one hundred pages that have very much the appearance of a compilation from the catalogues of English makers, Nachet being the only foreigner deemed worthy of a place. In a work avowedly for amateurs the description of what the author calls first-class, and what we should call complicated, microscopes is out of place. The tendency is to encourage what we look upon as the bane of almost all the American and English microscopists who have not had, at least indirectly, the benefit of German training, namely, an inclination to make machinery take the place of the educated hand, and to waste time and money on optical effects quite valueless except for test objects. While the followers of this school have been struggling with diatomes and Nobert's test lines, those g simple instruments have made the discoveries that are revolutionizing ice.

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[1] *The Microscope and its Revelations.* By WILLIAM B. CARPENTER, M. D., LL. D. Fifth Edition. Philadelphia: Lindsay and Blakiston. 1875. Pages 848.

rofessor Frey's book,[1] which we are glad to see in English, is of quite her nature. It is not for the amateur, but for the student of histology of and of the higher animals. Kölliker's book, though good, no longer rep- nts the progress of science, and Stricker's Handbook is the only one with h we need compare this work. The former is a series of monographs by , and, in many cases, by eminent investigators; the latter is a compilation ed up to the present time. In it we miss the conviction, the brilliancy, sometimes the clearness that characterize many of the monographs, but, he other hand, the work which is smaller, without being meagre, has an r and completeness that is impossible in a series of disconnected papers. various opinions on disputed points are fully and fairly presented. The is in three parts; the first on chemical composition, the second on the ture of the tissues, and the third on that of organs. We are inclined to ise Frey's definition of a cell, "which consists of a soft mass including in it a peculiar structure." This latter is explained to be the nucleus and eolus, which surely are not essential parts. Too much importance is, we k, given to the so-called cell-wall. We are sorry we find the term neuri- na applied to the sheath of Schwann, which envelops the myelin, as usage tends to confusion. The chapter on the structure of the brain rves great praise for the large amount of clearly expressed information it ains. The description of the mucous membrane of the stomach embodies latest researches of Haidenhain and of Rollett. Though for the purposes eference this work will not take the place of Stricker's Handbook, it is, we k, the best one on this subject for students that we are acquainted with. translation is very good.

T. D., Jr.

SALTER ON DENTAL PATHOLOGY AND SURGERY.[2]

THIS is an excellent work, largely original, rich in pathology, clear and cise in description. So far as we are aware, it is much superior to other rks of its class which have been published in this country. The position of author as the official examiner in dental surgery at the Royal College of rgeons gives weight and authority to his conclusions. Other and more uminous works on oral surgery have seemed to us to contain much on eral surgery which was wholly irrelevant to the dentist.

The pathology and treatment of the teeth comprise a dentist's duties. But air general knowledge of the affections of the mouth is also of importance him.

The Histology and Histo-Chemistry of Man. By Professor HEINRICH FREY. Trans- d from the Fourth German Edition, by Dr. ARTHUR E. J. BARKER, of Dublin. New rk: D. Appleton & Co. 1875. Pages 683.

Dental Pathology and Surgery. By S. JAMES A. SALTER, M. B., F. R. S., Member of Royal College of Surgeons, Examiner in Dental Surgery at the College, Dental Sur- n to Guy's Hospital. New York: Wm. Wood & Co. 1875.

We would instance alveolar abscess, whose ravages are comparable to those of felon, as one of the diseases in which a correct and early diagnosis is most essential to avoid necrosis and deformity. Early and free incisions — abortive, we will call them — often give immediate relief and prevent extension of mischief from the tooth fang to the alveolus. We are glad to see Mr. Salter sustain an opinion we have always held, that the removal of the ulcerated tooth is the only final cure of this affection.

In the chapter on anomalies some curious facts, chiefly old, are given concerning double-sets of teeth, and the occurrence of a third dentition at an advanced age.

Some very interesting pages are also to be found on the relation of the teeth to articulation, and the imperfections in pronouncing certain series of consonants and words due to the loss of incisors and canines.

One of the most important chapters to the surgeon is that on odontomes, or misplaced and hypertrophied growths of dentine. Differing from the original paper by M. Broca, Mr. Salter classifies them as follows: warty growths, hernia of the fang, enamel nodules on fangs, exostosis, dentine excrescence. To many surgeons these peculiar formations may be familiar; we confess they were new to us.

Dentigerous cysts, the impaction of teeth, tardy or painful eruption of the wisdom teeth, neuralgia and even graver affections from difficult dentition, and many other points are dwelt on at length. Cleft palate, which all dental treatises improperly include in their list of malformations, is also treated of here. The dentist's duty in this and some other affections is purely mechanical. On the other hand, too little space is devoted to the effects of hereditary syphilis or scrofula on the teeth.

The tendency of all specialists is to injuriously magnify their office. But on the whole, there is much in this book we can commend to the general surgeon. C.

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PETTENKOFER ON THE PREVENTION OF CHOLERA.[1]

THAT old and excellent adage, "An ounce of prevention is worth a pound of cure," has never, perhaps, been better verified than by the medical profession, and that with ever-increasing illustration during the last few years. To this the marked results of the efforts of boards of health are constantly bearing witness, a fact, we may say with pride, nowhere better manifested than

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[1] *Cholera: How to Prevent and Resist it.* By Dr. MAX VON PETTENKOFER, Professor of Hygiene, University of Munich, Obermedicinalrath, President of the Sanitary Commission of the German Empire, etc. From the German. Translated (with Introduction and Appendix on the International Cholera-Conference of Vienna) by THOMAS WHITESIDE HIME, A. B., M. B., etc.; Ex-Royal Scholar, Trin. Coll. Dublin; Lecturer on Obstetric Medicine and Diseases of Women and Children, in the School of Medicine, Sheffield; Medical Officer to the Hospital for Women; Surgeon-Accoucheur to the Public Hospital and Dispensary; Fellow of the Obstetrical Society, London, etc. Revised by Dr. Von Pettenkofer. With Illustrations and a Chart. London: Baillière, Tindall, and Cox; Paris: Baillière; Madrid: C. Bailly; Baillière. 1875.

by the doings of our own State board, of which the late lamented Dr. George Derby was such an active and efficient executive officer.

Notwithstanding this, it is astounding to learn how much more is to be done to prevent disease, and to inform and protect communities. It is only necessary to read certain statistical information — and, amongst other material of this sort, the statements furnished in the valuable little volume under notice — to be almost appalled at the *exposé* of the amount of "preventable disease." It is alike the glory and the duty of physicians and surgeons to give their best attention and efforts to this subject — *the prevention of disease.*

The translator of this work — Dr. Hime — writes thus, on page 15 of his Introduction: —

"It is often very difficult to get people to realize the necessity or advisability for a measure, the results of which do not immediately strike some of their senses. The frightful loss of life which occurs annually in England, from diseases originating in preventable nuisances, is one of the saddest instances of the truth of this remark.

"Nearly a million of people were killed in England during the ten years 1850–59 by diseases which, without a doubt, are to a great extent preventable, the principal cause of such a loss of life being the reckless pollution of the ground by sewage."

The English official known as the Medical Officer of the Privy Council says (Thirteenth Report), "It seems certain that the deaths which occur in this country (England) are fully a third more than they would be if an existing knowledge of the chief causes of diseases were reasonably well applied throughout the country; that of deaths which, in this sense, may be called preventable, the average yearly number in England and Wales is now about one hundred and twenty thousand; and that of the one hundred and twenty thousand cases of preventable suffering which thus, in every year, attain their final place in the death register, each unit represents a larger or smaller group of other cases in which preventable disease not ending in death, though often of far-reaching ill effects on life, has been suffered."[1]

We have written and cited thus much about the prevention of disease, because the author of the treatise before us insists strongly upon the preventability of both cholera and typhoid fever. To be sure, this is nothing new; we have all been in the habit of thinking thus for some time; but it is only more and more apparent, with advancing years, that efforts in the direction of "prevention" cannot be too largely nor too perseveringly made, if we wish to diminish the fearful ravages of disease, of the nature, especially, of those just alluded to.

Dr. Von Pettenkofer does not enunciate anything particularly novel as to the history or treatment of cholera, but his theory as to the influence of locality and soil-conditions upon the production of the disease is not only interesting, but bears within it all the elements of reasonable deduction, acute observation, and sound common-sense. Upon this portion of his work, alone, we base a strong recommendation for its perusal, not only by members of the medical profession generally, but by persons composing boards of health, and by intelligent communities at large, for we are all concerned in forwarding such measures of hygiene as are suggested by its teachings.

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[1] Loco citato, page 16.

One important point set forth in this volume is the marked influence of what is termed the "ground-water," in various localities. This is best illustrated by the chart which faces the title-page, and which is denominated "A Chart showing the Variation in the Ground-Water and in the Mortality from Typhoid Fever in Munich." The diagram comprises the observations made in these respects between the years 1855 and 1872, inclusive; and this registration is at once remarkable and decisive. Simply stated, it is thus: the higher the "ground-water," the lower the mortality-rate. And the author, as we understand him, would apply to cholera the facts which are true for typhoid fever.

We cannot do better than to quote further, from the editor's introduction and from the author's text, a few sentences which will show the drift and value of the work, which truly deserves a far more thorough analysis than can be given in a mere notice. And thus we may induce a more extended examination of this valuable contribution to the literature of cholera.

"Nothing can be more erroneous than the common idea that the atmosphere ends where the ground begins. The ground is not half so solid as it seems, and currents of gas and water circulate freely through almost any part of it, except the most compact clay and rock."[1] "If a fluid like water can make its way through the ground, it will not be surprising that air, which is seven hundred and seventy times lighter, and more movable than water, should very readily traverse it." From this is argued the facility with which noxious gases filter, as it were, through the soil. "Gravel-soil," says Dr. Hime, is only "semi-solid," and of course it much more readily allows the passage of air and gases than denser earth and the nearly, or quite, impervious moist, clayey soils, which are therefore comparatively, and sometimes wholly, free from objection on this score. "A block of apparently solid gravel contains one third as much air as stone, and a house built on such a foundation is therefore practically resting on a stone support which stands in air." (Hime.) In the winter and spring the "ground-air," being colder than that within our houses, flows inwards and upwards into them; but in summer, the air within, being cooler, flows downwards and outwards, and displaces the "ground-air," drawing it towards the warmer earth surface and outer air. For these reasons, it is counseled to extend the chimneys of the lower stories of houses into the cellars, there to open into "a chamber formed beneath the cellar floor." During autumn, winter, and spring, chimneys thus built will carry away from the houses and the adjacent ground the "foul gases and disease-germs emanating from the soil."

With regard to the influence of the ground-water on the production and aggravation of both cholera and typhoid fever, the translator says, "The reason why variations in the ground-water should assist the development of cholera and typhoid fever is not clear, but a satisfactory solution of the question might be soon looked for, if the undeniable fact of the necessary relationship between these phenomena were generally acknowledged."[2]

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[1] Introduction, page 8.

[2] Introduction, page 23.

On the same subject (and this is really the distinctive point in the book) Dr. Von Pettenkofer remarks, "Just as in certain places the existence of typhoid fever exhibits a certain temporal dependence on the variations of the moisture of the soil, of the so-called ground-water, in like manner it is probable that cholera is similarly dependent, though, owing to the fortunately less frequent prevalence of cholera, the relationship cannot be so regularly and satisfactorily proved as in the the case of typhoid fever."[1] The author has at hand observations of the variations of the ground-water for sixteen years past, "made regularly at Munich." Many other points might be considered; but the most important, having reference to the author's intentions as indicated by the title of his book, has been presented.

The volume is exceedingly well printed, and finely illustrated, and deserves the widest possible circulation. W. W. M.

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REPORT OF THE NORTHAMPTON STATE LUNATIC HOSPITAL FOR 1874.

The report of Dr. Earle contains some interesting features which we will briefly notice. First, the fact should be known that to this hospital are transferred many chronic cases from Taunton and Worcester, so that nearly nineteen twentieths of the inmates are incurable. Next the large number of recommitments is well shown by a table, which gives nearly forty per cent. of readmissions. The total admissions of one hundred and ninety-three patients was no less than three hundred and fifty, owing to the fact that the chronic insane are very properly allowed to live at home, in the remissions of disease, or when their safety and that of the public will allow it. Four pages are devoted to urging the establishment of a State asylum for the legal detention and treatment of habitual drunkards. This subject has been repeatedly brought before committees of the legislature, by hospital officials, during the last fifteen years, without effect. This year a petition with one thousand seven hundred names has been sent in. The report of the Commissioners of Lunacy advocates a State inebriate asylum, and the report of the State Board of Health, it is supposed, will do the same. Let us hope something will come of it.

Dr. Earle also advocates an asylum for epileptics, and regrets the policy of the city of Boston in not erecting a hospital within her own borders, instead of turning off her citizens upon the charity of the State. He says, "That a city of so much wealth, and of such broad philanthropy and beneficence, will long remain without such an institution, to perfect its circle of charitable works, is difficult of belief."

He objects to the size of the contemplated Worcester and Danvers hospitals, adhering to the standard of two hundred and fifty to three hundred beds, as adopted by the superintendents' association some years ago. He shows that the expense need be no greater, if as great, in hospitals of the latter size. He would build one in each county, if necessity required, making them truly *hospitals*, instead of asylums for incurables merely.

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[1] Page 35.

Dr. Earle's record of the facilities furnished for the instruction and amusement of patients, and the amount of work done by them, is as usual detailed and interesting.

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SAINT BARTHOLOMEW'S HOSPITAL REPORTS.

The report for 1874 has been published, the tenth volume in the series. There are thirty papers in this volume, including many of value. We have not had time to read them all, and the list is too long for publication. We cannot help, however, calling especial attention to some remarks upon typhoid fever, because of certain observations upon the subject of temperature. This matter is as yet far from being well understood; the hours of maxima and minima are apparently lawless. In the cases reported, the thermometer was used almost hourly; on no single occasion did eight o'clock in the morning gives the minimum, or six o'clock in the evening the maximum. Far from it. The discrepancies were very great, nor would they have been less had other hours been chosen.

Further on are reports of cases of rheumatic fever with high temperature, which are interesting in the same connection. In two of these cases the temperature reached 108.6° and 107.6° respectively, yet the result was recovery.

A case of recovery from acute Bright's disease, treated by sulphurous acid and vinegar, may lead some reader to try a new remedy in what we generally look upon as an almost hopeless affection. The usual number of interesting medical and surgical cases fills up the volume of over four hundred pages.

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ZIEMSSEN'S CYCLOPÆDIA.[1]

On the appearance of the first volume of the translation of Von Ziemssen's Cyclopædia, we took occasion to recommend the work to our readers as one of great value, and to express our confidence that the succeeding volumes would equal the first in merit. In this belief we have not been disappointed, so far as the second volume is concerned, which is a continuation of the first, on *Acute Infectious Diseases*, and contains articles on *Varicella, Measles, Rubeola, and Scarlatina*, by Professor Thomas, of Leipzig; *Small-Pox*, by Professor Curschmann, of Berlin; *Erysipelas, Miliary Fever, Dengue, Influenza*, and *Hay Fever*, by Professor Zuelzer, of Berlin; *Malarial Diseases*, by Professor

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[1] *Cyclopædia of the Practice of Medicine.* Edited by Dr. H. von Ziemssen, Professor of Clinical Medicine in Munich, Bavaria. Vol. II. *Acute Infectious Diseases.* Albert H. Buck, M. D., New York, Editor of the American Edition. New York: William Wood and Company. 1874.

Hertz, of Amsterdam; and *Epidemic Cerebro-Spinal Meningitis*, by Professor Von Ziemssen. Like the first volume, this is prefaced by a short bibliographical sketch of the writers, by the editor. We have nothing to say in regard to the articles which it contains, save that they are written in the same careful and conscientious manner as those of the first, and that they will be of great value to the general practitioner.

MEDICAL ADVERTISING.

THIS subject has been freely discussed of late in the medical journals of this country and of England. It appears to have become a rapidly growing evil, and one which all classes of medical men have been guilty of to such an extent as to call for a decided expression of public opinion. We do not, of course, allude to that barefaced method of extolling one's own virtues which is commonly employed by the charlatan. The object is accomplished in a more guarded and insidious, and therefore, probably, more effective manner. The methods used are various. One form of this evil is severely commented upon by a French reviewer as follows: "For some time past English literature has become enriched by a large number of medical works, of which the object is not always the advancement of science and the search after truth. Many of these works are nothing but touting for patients — a kind of costly but paying advertisement, which their authors allow themselves to put forth in order to attract the attention of the lay public. . . . . Thus every day we receive from them a large number of books for criticism, which we take good care neither to read nor to analyze, and of which the first page sufficiently shows the idea which has inspired the composition of the book." The practice of advertising in the newspapers medical books which were avowedly written for medical readers is, we understand, largely resorted to in England; in this country, so far as we are aware, such advertisements are rarely seen. Of the former class, however, namely, of books written on medical subjects and addressed to the public, or intended largely for public perusal, we have seen numerous examples lately. Within the last ten years medical book writing has increased so rapidly in this country, and the business has grown to such dimensions, as to offer an attractive field to all enterprising members of the profession of this class. We have little sympathy for those medical writers who appear in print less with a desire to add anything of value to medical science or medical literature than with the hope of calling the attention of their brethren to their own individual merits; but what shall we say of those who take advantage of the powerful weapons placed at their disposal to pry their way burglariously through the obstacles in the path to public favor, and pocket the results of a policy so lucrative and tempting, but so damaging to medical morals? Such customs, into which no inconsiderable number of physicians are surely drifting, not only lower greatly the dignity of the profession, but also are extremely discouraging to all hard-working, honest, and modest men. Such practices are doubtless chiefly confined to large cities like New York and London, where the temptation is great and a happy h sure to be followed by large returns in the shape of a handsome professi income. It is a weak point in our system of professional morals, and one to w the tendencies of the age give great encouragement. The readiness with w members of the profession in New York allow their names and work to ap in the daily papers has long been a matter of general comment, but an stance has lately occurred in that city which far outstrips anything we rem ber to have seen or heard of before. The members of a New York soc enjoy the unenviable privilege of having listened to a paper, which su quently occupied several columns of a daily paper, wherein the merits of writer were extolled at the expense of his fellow-practitioners, and indee medical science in general. Such a case is but the natural result of loose in matters pertaining to medical ethics, and shows forcibly the danger of slightest departure from strict rules. We are glad to see that the me journals have taken the matter in hand, and we hope that in the partic instance alluded to there will be such a decided expression of feeling aga all practices which encourage cases of this sort, that it will be found no pay to help one's self by any other than well-recognized legitimate method

DR. TYLER'S ADDRESS ON THE POMEROY CASE.

We have received a printed copy of Dr. Tyler's address to the gover and council in favor of commuting the sentence of the boy murderer, Pomer In accordance with what we think our solemn duty, though much against inclination, we offer our deliberate protest against it. We regret that address is not the careful and impartial summing up of the conflicting ar ments in this most difficult case, which we should have expected, but a v one-sided statement. Everything showing Pomeroy's sanity is put b everything showing his insanity brought forward, and there appears to be least one attempt to lead the unprofessional mind from the paths of rea into those of sympathy. Dr. Tyler says, "He has lost the use of one e which he says is the result of vaccination;" even if this extraordinary occ rence is true, we have yet to learn that the loss of an eye makes the suffe irresponsible. We must also criticise the conclusions drawn from conver tions with the prisoner. Let the reader imagine himself in the position of t latter, his life in danger, and an expert on insanity questioning him as to motives. What is he to say? He answers, "It *seems* I did so;" "I *had* t Could he answer better? Can we expect him to confess he did it for spo Even if he did, we imagine that insanity would be alleged. Dr. Tyler a lit later speaks as follows: "None of the usual incentives to crime appear this case; no offense had been taken, no grudge, no envy felt, no hope of g or advantage appears, no lust; nor is it believed that the boy had been ag cruel, or bad." Can we be quite sure that there was no lust, that no pervert sexual appetite may have been one among other agents? Was it not stated, evidence for the defense, that the boy was always cruel, and took delight in torturing animals? Finally, can we not show a "reasonable and satisfactory external motive?" The love of admiration is strong in the young; we have here a boy hard and cruel to a remarkable degree, who is deeply read in "dime novels" abounding in scenes of blood and crime. Dickens, with his deep knowledge of human nature, points out the error we commit in being surprised at the apparent ecklessness with which certaincriminals offend public opinion, and shows that they are pandering to the public opinion of their own wicked associates. Sir Mulberry Hawk is cited as an instance: "his world was peopled with profligates, and he acted accordingly." To such a boy as we have described, the desperado is a gallant warrior, the executed felon a glorified martyr. His conscience, never keen, becomes still duller. To show power, to inflict pain, to spread terror by a series of undiscovered outrages, is to him the highest career; and it is hardly a misfortune to fall a victim to numbers, to meet his accusers boldly, to be the central figure of a great drama, to have his fame spread throughout the country as the bewilderment of experts and the embarrassment of the executive, and, if need be, to "die game," an object of admiration as well as of horror. Such may be the effect of bad reading upon a bad nature. Those familiar with youthful crime know that such cases are far from rare. The criminal's state of mind may be called morbid, but the following vital facts must not be overlooked: he knows that his course is wrong, he pursues it of his free will, and he conceals his crimes to escape punishment. All this is true of Pomeroy, and in our belief he is accountable before God and man.

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ABSENCE OF THE URETHRAL CANAL IN A NEW-BORN INFANT.

Dr. C. Jacquart reports to *L'Union Médicale* of March 11, 1875, a very interesting case of congenital imperforation and absence of the urethra in a new-born infant. He states that at midnight of October 24, 1874, a woman was delivered of a male child which appeared to have all the external signs of perfect conformation, and nothing abnormal was noticed by the physician in his attentions to the child. The next day the infant was carried to a nurse ten kilometres from the city. On the following day the nurse was disturbed by the incessant cries of the child, but could not discover their cause. On the third day, the 27th, she noticed that the diapers had been soiled by fæcal matter only, and that the infant had not urinated.

Dr. Jacquart was summoned in haste, and arrived about three P. M., to find the child very ill, with feeble pulse, pinched features, and uttering loud, pitiful, and continual cries. Sixty-four hours had elapsed since his birth, and no passage of urine had been effected. An examination of the penis showed complete closure of the meatus urinarius, of which neither form nor place was apparent. The glans, slightly uncovered, was wholly without depression, and the prepuce was intimately adherent to the glans at its lower three fourths. There was need of immediate interference, and yet, a novice, Dr. Jacquart found himself, all unprepared, called upon to perform an operation which he had never seen nor heard of. He proceeded as follows: He made a longitudinal incision in the direction, and at the usual place, of the meatus, hoping to find the urethra, and thinking to have only a case of imperforate meatus; but he was disappointed, and having met with no success, he plunged in the supposed direction of the urethra the blade of a straight-pointed bistoury. He sounded the wound he had made with a blunt stylet, hoping to find some index to direct his course.

Finding no passage, and seeing that the danger to the infant was every moment increasing, he decided to make a passage at any cost. He bent a grooved stylet into the form of a sound, and pushed it slowly, but with sufficient force, through the wound already made, in the direction of the absent canal. He became convinced that his efforts were with every advance of the instrument overcoming the difficulty which was constantly encountered, and that the proper path was being followed. Finally the bladder was reached, but not a drop of urine came. Not having a sound sufficiently small, he bent the stylet anew, so as to use the groove as a sort of conduit, and finally succeeded in his purpose. A large quantity of urine flowed along the groove of the sound, and the infant was speedily relieved.

The following day the child had passed no urine, and Dr. Jacquart was obliged to perform in part the operation of the evening before. Some adhesion had taken place of the artificial meatus and walls of the urethra. Accordingly he permitted a very fine bougie to remain, for the purpose of keeping apart the fresh surfaces and preventing their adhesion. The child urinated in spite of the presence of the bougie, which after a few days was removed, and urination was normally performed. The cure was permanent. No attempt was made to separate the prepuce from the glans, the parts being very firmly adherent. The quantity of blood lost in the operation was moderate.

The above was a case of imperforation, not only of the meatus urinarius, but of the entire canal, as was abundantly proved by the difficulty of introduction of the sound even to the bladder. The meatus was completely absent, but it seemed to Dr. Jacquart that the walls of the urethral canal were only strongly adherent, and that they in reality existed.

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CASES OF SYPHILIS WITHOUT MERCURIAL TREATMENT.

UNDER the heading of Clinical Contributions to Syphilidology, Drs. Van Buren and Keyes report two interesting cases to the *Archives of Dermatolog[illegible]* for January, 1875. The first was that of a physician who while a student go[illegible] a small, insignificant primary sore. By advice of a medical friend he took n[illegible] medicine. A slight papular rash appeared. For this he physicked himse[illegible] with laxative medicine, but took no mercury. The rash disappeared and wa[illegible] not followed by a successor. His health remained perfect. Nine years aft[illegible] the chancre a node appeared upon the cranium. This caused no uneasiness, i[illegible] nature not being suspected. The node remained hard, solid, untreated, *for eleven years*, the general health continuing vigorous; but now the patient became prostrated for several weeks by a sickness which had no connection with syphilis, and on recovering from the attack the node softened. After being opened the edges sloughed extensively, leaving the bone bare over a circular area of more than two inches in diameter. At the time of the patient's visit the necrosis had been visible for nearly a year; its nature had been suspected, but he had employed no specific treatment. Pus had burrowed under the scalp for several inches posteriorly.

The second case was that of a man who acquired a slight urethral discharge as his first venereal malady. This was followed by double epididymitis, and purulent urethritis, from which he slowly recovered. He had no other symptoms and took no mercury. In one year he married, and had a healthy child. His wife never conceived again, but remained well. Twelve years after his urethral chancre — as it probably was — some ecthymatous spots appeared upon the patient's legs. Suspecting their nature he went to a specialist of distinction in venereal disease for treatment. Under the use of arsenic the "boils" disappeared, and their sites were occupied by pigmented scars entirely characteristic of antecedent syphilitic lesion. One year later the patient ran down in general health, became yellow and thin, lost the power of reckoning, had hemicrania and double vision, loss of memory, and many evidences of failing brain power. He was sent to Europe for threatened softening of the brain, and was told in Paris by a distinguished practitioner that his symptoms were due to threatened apoplexy. Most of his nervous symptoms having disappeared, he returned to America. After some months his present symptoms developed, namely, tertiary gummy infiltration of the soft palate, with rapidly advancing destructive ulceration, for which he now applied for treatment, not suspecting its nature. Improvement commenced at once and advanced with great rapidity under the iodide of potassium.

The reporters state that these cases are full of food for thought. The facts of the second case may be defectively stated, since the patient had brain symptoms and his memory may not be trustworthy. He may have had, after his urethral chancre, some eruption which was not noticed, or was forgotten; but still here are two individuals with infecting chancre, neither of whom gets mercury. The one has one mild symptom, the other nothing that he can remember; both are cases which, according to Diday, should get no mercury, yet both have disastrous sequences.

The following conclusions are drawn from the cases: 1. The evolution of syphilis may be mild and regular, even when no mercury is used early in the disease. 2. With the mildest beginning in syphilis, untreated, the most terrible consequences may occur after years of quiescence. 3. The severity of tertiary lesions does not depend upon previous use of mercury. 4. The efficacy of the iodide of potassium, properly employed, is not dependent upon a previous use of mercury. 5. A father with syphilis may have a perfectly healthy child.

MEDICAL NOTES.

— Dr. D. W. Cheever has been appointed Professor of Clinical Surgery in the Faculty of Medicine at Harvard University.

— As will be seen by the announcement published among the advertisements, the medical department of Harvard University has taken another step forward, It has established an examination for admission; and on and after the beginning of the school year of 1877 no student will be admitted to the classes without passing it, except such as can present a degree in letters or science from a recognized college or scientific school. The requisites for admission cover but a small field and are not exacting in extent, but they embrace that amount and kind of acquirements which are essential to the study of medicine and insure, moreover, some degree of preliminary mental training.

The school has attained such a position of success that it can safely venture upon this additional step in the reform of medical education. Of its importance to the student and to the profession there can be no question.

— The *Medical Press and Circular* states that the London Hospital Sunday is now a success. As much cannot be said for Hospital Saturday, which movement has proved too costly, and is not popular with the profession, since it is supposed that artisans and operatives in the receipt of good wages may in future, by a small subscription, consider themselves entitled to medical relief in times of sickness, and behave rudely to medical men performing onerous and unpaid services. The whole system of London medical charities is under discussion, and something like a revolution is required to make medical charity at all compatible with the interests of those medical men in London who desire to live by their profession.

— We learn from the *London Medical Record* the following facts concerning the Swiss medical faculties. Each of the three universities at Bâle, Berne, and Zurich, possesses a faculty of medicine. German is the language in use at these universities; but a fourth faculty has just been founded at the University of Geneva, where French is the medium of instruction. At Bâle there would seem to be considerable difficulties in the way of anatomical teaching, since the law only allows the dissection of suicides and persons who die in prison. What is known as the polyclinic does not exist there. This institution, which is common to the other Swiss universities and the majority of German universities to a certain extent resembles our out-patient departments, as by its instrumentation advice is given to out-patients. But this system is there supplemented by the students being sent to the homes of these patients when necessary, under the directions of the principal physician in charge. Instruction is given in the Swiss faculties by ordinary and extraordinary professors named by the college of professors, and appointed by the cantonal government, which defrays all the expenses of the university, and by free professors (*privat docenten*), authorized under certain conditions to hold courses, remunerated exclusively by the pupils, which strengthen and complete the official teaching. The Swiss faculties of medicine, notwithstanding their justly earned repute, for they have reckoned amongst their professors Lebert, Billroth, Griesinger, Schiff, Liebermeister, etc., have very few students; their are scarcely two hundred at Zurich, one hundred and fifty at Berne, and seventy at Bâle. The grades obtained in any of the universities do not immediately confer the right of practicing medicine throughout Switzerland. As a rule, each canton grants the right of practicing in its territory to the doctor who has obtained his diploma only after he has passed special examinations before a jury named *ad hoc* by the communal authorities.

— Our readers may remember the notorious quack Tumblety, who figured in this city many years ago. One of the same name, styling himself "the great American doctor," has lately been brought before a coroner's jury at Liverpool, England, on the charge of administering a poisonous mixture to a patient. He escaped with a strong censure from the jury, who, however, did not take steps to ascertain his real medical standing.

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SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. HOMANS AND INGALLS.]

The following operations were performed during the week ending Friday, April 9, 1875: —

1. Tumor of palate. 2. Recto-vaginal fistula. 3. Tumor of finger. 4. Labial abscess. 5. Palmar abscess (two cases). 6. Amputation of toe.

1. *Tumor of Palate.* — The patient was a young and healthy man. He first noticed the tumor four or five years ago. There has been a slight pain in it at times, and lately it has discharged a little bloody pus. The growth was attached by a broad base to the right side of the palate, and filled the roof of the mouth. It was soft, irregular, slightly movable, ulcerated in one spot superficially, and free from the gum. The patient having been etherized, and Smith's gag applied, Dr. Homans seized the tumor with a vulsellum, and quickly removed the whole growth with a pair of long, curved scissors. The hæmorrhage was free, but it was easily checked with ferric alum.

The growth was loosely attached to the hard palate, and there was a small opening into the right inferior meatus. There had never been any discharge from the nares, nor had they ever been obstructed. The microscope showed the growth to be made up of fibres and multitudes of nucleated cells, similar to those of a large round-celled sarcoma.

2. *Recto-Vaginal Fistula.* — The patient was a young woman, and the fistula was the result of a syphilitic stricture of the rectum, which made its first appearance about a year ago, according to the patient's account. The fistula was just above the external sphincter ani, the vaginal orifice being on the left, near the posterior commissure. It had been treated by caustics, injections, division of the external sphincter ani, and by a plastic operation. It remained closed a short time after the latter operation.

Dr. Homans passed a director through the fistula, and divided all the tissues that bridged it over, as in the common operation for fistula in ano; and the subsequent treatment will be the same as in an ordinary anal fistula.

GEO. W. GAY, M. D.

PATHOLOGICAL STUDY IN VIENNA.

MESSRS. EDITORS, — Several weeks ago a gentleman connected with the University of Vienna happened to mention to me a remark of Professor Stricker, that medical education in America was spoilt by the fact that money-making was the main object of the profession there, though he had heard that a beginning had been made in Boston, where an "embryo" medical university had been started. This remark, made probably in casual conversation, needs no comment from Americans, who know the advantages they enjoy at home, which perhaps a foreigner cannot be expected to have heard of. Those, however, who are acquainted with Vienna may be pardoned for expressing surprise that the Viennese professor of experimental pathology sought for examples of money-making medical instructors so far from his own city.

But perhaps it may be of benefit to those now studying at home, and planning a trip abroad, to hear of the scientific advantages now offered in Vienna. Several Americans went here last winter, thinking that in the great medical centre there would at least be fair instruction in pathology, sharing also a belief not uncommon at home that the German mind is inspired with undying zeal in investigation, and that pathology can be learned from German lips only. One American had even left his course unfinished at one of the best medical schools in America, seeking apparently a "scientific" training before finishing his practical one at home.

It would be well if the exact state of the case were understood. Fine as the clinical advantages are in Vienna in most branches, the opportunities for scientific research are far from being what they should be. Pathology is not well taught, and microscopical pathology is not taught at all. There is no room for the microscopical examination by students, either by beginners or by those who are advanced, of the rich pathological material afforded by the hospital. Speaking only of that "embryo" school in America of which I have any knowledge, I am sure a student has better opportunities for instruction in pathology in Boston, although the material is small, than in Vienna. The autopsies are necessarily made hurriedly, with no attempt at demonstration. The most interesting specimens are collected, and shown by the assistant in a private course on gross pathology. This is excellent as far as it goes, but the demonstration is by no means thorough; it is satisfactory only to one who, being well grounded, is anxious to see a great variety of specimens, or to one who is content with a very general idea of pathology. There are two laboratories where histology can be studied, one where instruction is given in histology and embryology. Special work can be done in Professor Stricker's laboratory; but I have been told by persons who worked there that the instruction was not such as could be desired. In none of these laboratories, however, is it possible to make use of the material of the pathological department.

My own experience may serve as an illustration. With a friend I tried to find a course on the microscopical pathology of tumors. None was advertised, but we made inquiries of a number of the "docents," who referred us to the assistant at the pathological department as possibly willing to give private instruction. This he refused to do, but stated that in a month the second assistant might be able to; for the present, however, he could not, as he had no microscopes, and his time was entirely occupied in passing his graduating examinations. A request that we might examine with our own microscopes, without demanding instruction, such material as would otherwise be thrown away, was not granted. We were told that nowhere else in Vienna could instruction be given in microscopical pathology where there was any material at hand. This we found to be the case, though we applied at two of the histological laboratories, and to Professor Billroth's assistant and to Professor Wedl.

It is but just to say that there is a prospect of a change in Vienna when a new professor of pathology is appointed. When that will be, or if a proper man will be found for the position, is as yet uncertain. So much so that those gentlemen now studying in the "embryo" schools in America had better make full use of their opportunities in pathology at home, and not expect to find much in the great university in Vienna.

STRASBOURG, *March* 7, 1875.

LETTER FROM KNOXVILLE, TENNESSEE.

[FROM AN OCCASIONAL CORRESPONDENT.]

MESSRS. EDITORS, — In prefacing some observations upon the diseases of negroes, I will state that in East Tennessee the effects of slavery were less unfavorable in almost every respect, than in the more southern States. The climate and the nature of the soil were such as to render it impossible to keep large numbers of negroes on one farm or plantation. In fact, there was no profit in the institution, and slaves were kept because there was no other system of labor more feasible. Each family on a farm kept enough for the performance of its business, and dwellers in the towns a sufficient number to do the work in and about the house. Scarcely any but refractory slaves were sold, and hence the negroes grew up and lived in one place for a life-time.

They were generally well cared for, and, being mostly with their owners in the field or house, they became far superior to the average slave population in the South.

Emancipation caused the first scattering among them, and for obvious reasons great numbers congregated in Knoxville. Many of the able-bodied men enlisted in the Federal army, but returned after they were mustered out. The year 1865, then, found hundreds of families in and about this city. Many had become demoralized and physically diseased, from various causes, prominent among which was their association with the army. Venereal diseases were common in both sexes; and from exposure to cold and damp, other diseases preyed upon their systems. The proportion of mulatto children born within the last twelve years is great. A full-blooded negro is not so often seen as one would naturally expect and the bleaching process still goes on. It is an obvious fact that the mixed bloods are slender and incapable of resisting disease. The yellow negroes are very liable to contract pneumonia during the winter and spring months, which either proves fatal in a short time, or g on into a chronic form, till death ensues before autumn.

Menstrual derangements are very commonly met with. Exposure to c and damp at the period causes suppression and its consequent ills. Men rhagia, also, is common among the middle aged-women. Very often we m with cases in which the usual menstrual flow will continue for ten or m days, and be followed by leucorrhœa, which is seldom absent at any per during the month. We find much suffering from dysmenorrhœal pains, as ciated with ovarian neuralgia. There is a tendency to fatty and other deg erations of tissue in various parts of the body. Uterine tumors of a polyp character are often found, and thickening of the parietes of the womb is f quently observed. Ovarian tumors are common, and the tendency is to a velopment of this morbid condition, because of carelessness during menstr tion. There is a colored woman still living in this city, from whom the ent uterus was removed about twenty years ago.

Great numbers of premature births occur among the colored wom Quite a proportion of the children that are born at term die within the fi two years. Some succumb to neglect and want of proper nutrition.

In "slave times," the owners gave attention to infants, and rendered prom aid to nature in the rearing of children born of the negro women. Now, t sole care devolves upon the mother, who is ill fitted to nurse a sick infa while laboring for her own subsistence and for that of her family. T number of illegitimate children born of colored mothers is greater than m people suppose. The looseness which was proverbial in former times s obtains to a great extent. The question of paternity is one that, in too ma instances, will remain forever unsolved.

Tabes mesenterica, enlargement of the cervical glands, and chronic cu neous diseases, are very common among the children under ten years of a Measles and other exanthemata often assume a severe and fatal form, for t reason that there is indifferent care, and also because the vital forces are feeb Parturition in the blacks is generally easy. Few if any instances of deform pelvis can be found, and labors are seldom prolonged beyond the normal d ration.

Puerperal diseases are not so often met with as would be supposed. T women lie in bed more patiently, after confinement, than the whites in a co responding condition of life, but we often find cases where involution has be deficient, and the womb left in a thickened condition, with the cervix and much hypertrophied, and the woman a subject of uterine leucorrhœa. Absor tion is not so readily accomplished, by reason of the softness of tissue, or la of firmness. Hence prolapsus is often met with. Such cases are readily cur by appropriate medication, but many patients are not able to be proper treated, or continue to suffer indefinitely before they apply for medical aid.

The colored girls menstruate at an early age, many being no more th eleven or twelve, if healthy and well-nourished. There are some who, by re son of scrofulous habit or of tuberculous diathesis, do not menstruate till t age of fifteen, and occasionally we find a case where a cough sets in at the a of puberty, and the function is never established; decay progresses, and t girl sinks into the grave from some chronic disease. Such are more frequently found among the light mulattoes, who have a hereditary taint in the system.

The blacks are generally good patients, willing to take the medicines prescribed, and reposing implicit confidence in their physicians. Accustomed when slaves to have medical aid called without being required to pay the bill, they now in most cases act as if they expected others were ready to assume their pecuniary responsibilities.

Among the peculiarities in the negro is a freedom from granular disease of the eyelids, or trachoma. Dr. S. M. Burnett, of this city, who has devoted much time to the study of diseases of the eye, informs me that he has not met with a case, and that he considers the fact as one of race. Climatic causes would operate to produce it in the blacks, for it is common in the whites. The formation of fibroid tumors in the lids is very common, and excision is frequently performed. F. K. BAILEY, M. D.

KNOXVILLE, TENNESSEE, *March* 20, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending April 17, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State:—

Bronchitis, rheumatism, and pneumonia prevail in all parts of the State.

In Berkshire, membranous croup and whooping-cough have a local prevalence. There is very little scarlatina, measles, or diphtheria.

In the southern parts of the Connecticut Valley section, intestinal disorders are very common. Huntington reports a fatal case of meningitis, Holyoke a mild case of small-pox, and Greenfield a few cases of diphtheria. Influenza is prevalent in this section.

In the Midland section, influenza, diphtheria, and measles are common. Scarlatina, though not generally prevalent, has in some parts a special local severity, as, for example, in Boylston.

The Northeastern counties are unusually exempt from diseases of an acute nature. Scarlatina and whooping-cough are reported as prevalent in some parts, but they are less so than a week ago. The cases of small-pox in Reading have not extended, and only one now remains.

In the Metropolitan district, measles, with its associate, "German measles" (rubeola rötheln), persists as a quite general epidemic. In other respects, there is little worth noting with regard to the prevalent diseases in this section. Scarlatina is subsiding. Hyde Park reports one fatal case of small-pox.

In the Southern counties, influenza and whooping-cough have an extensive prevalence, in addition to bronchitis, rheumatism, and pneumonia.

Scarlatina and measles continue to have their field of maximum prevalence in Boston and its suburbs; whooping-cough is most rife on the Cape; and Worcester County has most of the diphtheria.

F. W. DRAPER, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING APRIL 10, 18

	Estimated Population.	Total Mortality for the Week.	Annual Death- per 1000 during
New York	1,040,000	572	29
Philadelphia	775,000	334	22
Brooklyn	450,000	185	21
Boston	350,000	163	24
Providence	100,000	30	16
Worcester	50,000	18	19
Lowell	50,000	21	22
Cambridge	44,000	26	31
Fall River	34,200	21	32
Lawrence	33,000	22	35
Springfield	33,000	4	6
Lynn	28,000	19	35
Salem	26,000	6	12

Military Appointment. — Dr. Horace E. Marion, of Boston, appointed Assi
Surgeon of the Fifth Regiment of Infantry, M. V. M., *vice* Sawyer discharged by reas
change of regimental commander, passed a successful examination before the Board of
ical Officers, M. V. M., April 15, 1875.

Edward J. Forster,
Surgeon Fifth Regiment of Infantry, M. V. M., Recorder of Boa

Dr. William F. Southard, Surgeon of the Second Corps of Cadets, M. V. M., resi
his commission and was discharged April 16.

Suffolk District Medical Society. — The annual meeting will be held on Satı
evening next, at half past seven o'clock, in the rooms on Temple Place. The electi
officers for the next year will be the special business, and the following papers will be
On a Curious Result following Cicatrix of the Membrana Tympani, by Dr. C. J. B
On Necrosis: Removal of the Sequestrum by Decomposition, by Dr. D. H. Parker
Exstrophy of the Bladder, by Dr. Henry J. Bigelow; and A Case of Myalgia, by Dr.
Lyman.

The Boston Society of the Medical Sciences will hold its regular meetin
Tuesday, April 27th, at Dr. J. Orne Green's, No. 12 Beacon Street.

Appointments. — Drs. G. G. Tarbell and C. B. Porter, of Boston, and Dr. Azel A
Jr., of Wakefield, have been appointed examining surgeons of the United States Pe
Bureau, *vice* Drs. J. B. Treadwell, H. Doherty, and H. Chase, of Boston, discharged.

Dr. S. A Green has been reappointed city physician, and Dr. C. Irving Fisher
physician, of Boston.

Special Announcement. — At a meeting of the delegates appointed from the Su
District Medical Society to attend the session of the American Medical Association at L
ville, May 4, 1875, it was announced by authority that to all delegates from New Eng
the price of round-trip tickets from Boston is reduced by special arrangement to less
forty dollars, without restriction as to time of return.

Massachusetts Medical Society. — A new edition of the complete catalogue of
Fellows of this society is in preparation, and will be issued at the time of the annual mee
in June. Any Fellows who have received circulars or letters of inquiry which they
not yet answered are requested to return replies at once. The editor of the catalogue,
H. Tuck, 24 West Cedar Street, Boston, will be glad to be notified of any errors or omis
in the last edition of this catalogue, published in 1870.

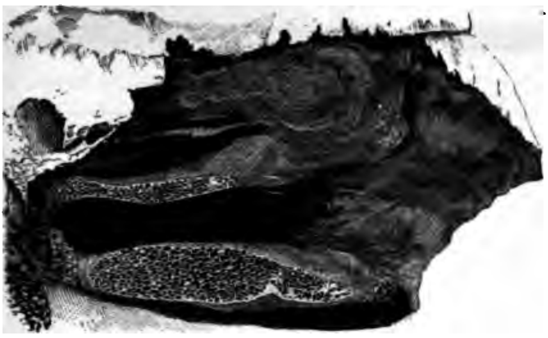

Fig. 1.

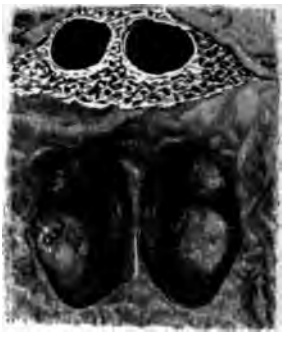

Fig. 3.

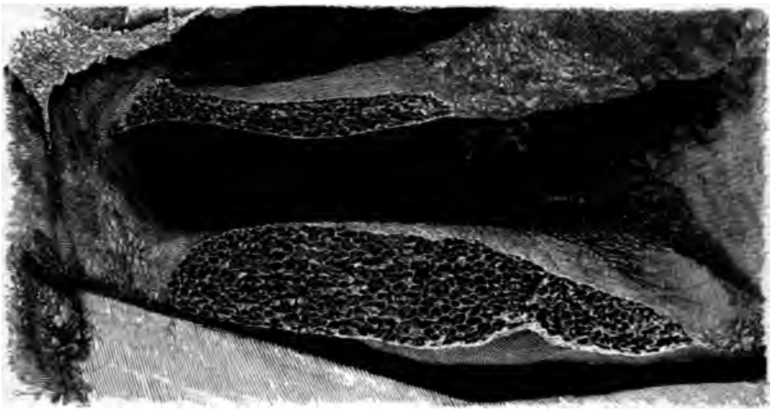

Fig. 2.

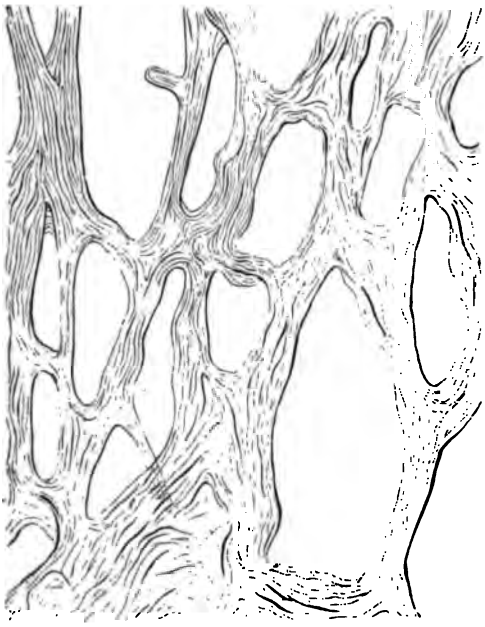

Fig. 4.

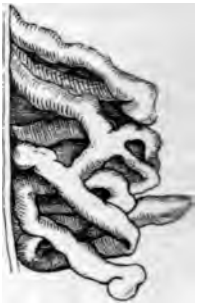

Fig. 5.

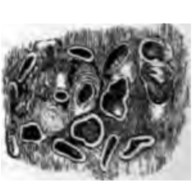

Fig. 6.

THE BOSTON
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TURBINATED CORPORA CAVERNOSA.

BY HENRY J. BIGELOW, M. D.,
Surgeon of the Massachusetts General Hospital and Professor of Surgery in Harvard University.

THAT the turbinated bones are imbedded in erectile corpora cavernosa is a fact of interest to both surgeon and physician. But that this simple and satisfactory explanation of the every-day phenomena of a "cold in the head" has not yet passed into current science is sufficiently shown by the little attention given to the subject in most standard modern works of descriptive anatomy. Venous congestion, dilated veins, veins resembling sinuses, venous plexuses, etc., are sometimes briefly spoken of as explaining the singular tumefaction of the Schneiderian membrane during inflammation; but very commonly this membrane, as a locality of erectile tissue of any sort, is ignored altogether.[1]

Many years ago, while examining for operation the cleft palate of a

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[1] It is a little curious that Rouget, who has made an elaborate study of erectile organs, makes no mention of the Schneiderian mucous membrane. (Du Tissu érectile, etc., Paris, 1856; Journal de la Physiologie de Brown-Séquard, vol. i., 1858; Comptes rendus de la Société de Biologie, 1857; Des Mouvements érectiles, Archives de Physiologie normale et pathologique, 1868, page 671.)

Eugene Boeckel, in the Nouveau Dictionnaire de Médecine et de Chirurgie pratiques, Paris, 1870, t. xiii. pp. 721, 722, in an extended consideration of the subject, states, as the result of his own investigations and those of Kobelt, that erectile tissue is confined to the genital apparatus, male and female, internal and external; but that Rouget, who "considers as erectile every organ in which arterial or venous plexuses are submitted to the action of smooth muscular fibre," "finds erectile tissue" not only "in the wall of the vagina, the uterus, the substance of the broad ligaments, and in the wing (*aileron*) of the ovary," but also "in the iris." The Schneiderian membrane is omitted in these enumerations.

EXPLANATION OF FIGURES.

Fig. 1. Upper jaw showing sections of turbinated corpora cavernosa, inflated and dried.

Fig. 2. The same magnified two diameters.

Fig. 3. Turbinated corpora cavernosa injected with gelatine and seen from behind. The injected and thickened septum is also seen.

Fig. 4. Section of posterior extremity of a turbinated corpus cavernosum, hardened in alcohol, treated with iodine and glycerine, and magnified ninety diameters, showing cavities, walls, and trabeculæ.

Fig. 5. (*From Kohlrausch.*) "Venous loops" injected.

Fig. 6. (*From Kohlrausch.*) Section of venous loops, showing the so called "cavernous venous tissue" and "cavernous cellular tissue" of Kohlrausch, consisting of "firm cellular tissue uniting vascular loops."

patient who happened to have a catarrh, I was attracted by the excessive turgescence of the mucous membrane on and about the inferior turbinated bone; but yet more, when it suddenly collapsed like the lung of a small animal. Remarking then to an assistant that this phenomenon was much more suggestive of the action of erectile tissue than of merely vascular congestion, I have since not unfrequently ventured to tell some suffering doctor that he would find upon the inferior turbinated bone an erectile tissue to elucidate, if it did not alleviate, his symptoms. Having, during the last year, examined the tissue in question, I have been able myself to identify a remarkable and well-formed cavernous structure, at least upon the inferior and middle turbinated bones.

The difference in the size of the distended and collapsed cavernous bodies is quite striking, and is best seen upon the inferior turbinated bone. Collapsed, the outline and dimensions are nearly those of its attenuated bony framework. Distended, it becomes an angry, turgid mass, of uneven surface and livid color, completely closing the lower nostril. A pouch-like process projects from the rear of the bone, increasing its length, and with the aid of a blowpipe readily showing on section, to the naked eye, the cavernous cells. It is this reticulated pouch that is seen with the mirror at the back of the nares.[1] Above it, is seen the middle turbinated mass, similarly distended; and if the injection of the whole membrane is considerable, the nasal septum also swells to the thickness of nearly one quarter of an inch, especially near its posterior edge. (Fig. 2.) With a little mucus in the interstices, the nostril is thus completely obstructed, the opposing surfaces doubtless producing by their firm contact the sense of weight and pressure sometimes experienced during the progress of a "cold." A depression in the bony septum sometimes corresponds to a protuberance of the cavernous tissue as if it had yielded to repeated pressure.

If inflated and dried, the cells project upon the surface. A section (Figs. 1 and 3) then gives further evidence of a cavernous structure, with closely juxtaposed cavities tolerably uniform in size and equally distributed; approaching quite nearly both the mucous surface and the bone. They communicate by irregular apertures, while minute bands and septa traverse and connect their common walls. A wet microscopic section (Fig. 4) exhibits thin trabeculæ and walls, composed mainly of connective tissue, presenting cavities of unequal dimensions, and closely resembling the cavernous structure of the penis;[2] although the smooth muscular element, as also the tunica albuginea, of the latter are somewhat more pronounced; as might be anticipated from the comparati erectile tension of this organ.

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[1] For a description of some of its various appearances, see papers by Dr. Cutter in this journal, lxxiii. 397, etc.

[2] For the annexed section, near the cavernous pouch, I am indebted to Dr. A. N. Blodgett, and for the drawing to Dr. Quincy.

The opaque and bulbous termination of a "helicine artery," on supposed to be characteristic of erectile tissue, is considered by Strick to be only an accidentally folded extremity of a "vascular loop." I is figured as a dilated loop in Todd and Bowman's Anatomy and Physiology (1856, page 6), and the drawing is taken from the olfactory membrane of the human fœtus. Observers differ about the dilatation.

Everybody is familiar with the firm and sudden impaction of the nose in acute catarrh; and has learned that a swallow of water, a pinch of snuff, a sudden start, mental or physical, as often clears the passage, to be again filled up. Medical men have usually taken for granted, as a satisfactory solution of these phenomena, the existence of a "congested mucous membrane;" and to explain this, an exceptional vascularity of this membrane, numerous and large veins, "venous plexuses," "cavernous venous plexuses," any or all of which would be, in fact, sufficient to distend a loose texture.

It is plain that either of the structures here enumerated might be artificially distended by the anatomist, with fluids or with air. But let it be remarked that if what is designated as a "venous plexus" resembles the choroid plexus, it consists of a bundle or skein of hollow loops or vessels, inside of which the blood circulates as usual, and is not a tissue of solid trabeculæ outside of which the blood collects in irregular cavities, as in the corpora cavernosa and spongiosa of the penis. In short, while the obstruction of the nasal fossæ is familiar, the explanation of its machinery has been neither uniform nor wholly satisfactory.

In the following quotations from the principal anatomists who have iven attention to this subject, it will be found that the erectile action is ttributed to the existence of a "venous plexus" or of a "cavernous enous tissue," in short, to enlarged vessels, rather than to well-develed "corpora cavernosa." Even Kohlrausch, the chief authority on is point, whose early investigations best cover the ground and are ost quoted, figures only a section of distensible loops and veins versing a dense structure in which they are separated from each ier. (Figs. 5 and 6.) I have become acquainted with these various estigations for the first time, in looking up the subject since my own parations here figured were made.

yrtl, to whom Kohlrausch refers, says, "The veins of the mucous brane form plexuses which remind one of the relation of the veins e cavernous bodies." [1]

lliker affirms that "the thickness of the mucous membrane of parts is not solely dependent upon the glands, but also, particularly on the edge and the posterior end of the lower turbinated bone, upon the abundant venous plexuses of almost cavernous character discovered by me in the interior of the same, so that a sort of erectile tissue exists here."[1]

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[1] Topographical Anatomy, i. 285.

Lastly, in Müller's Archiv (1853, page 149), is the communication from Kohlrausch before alluded to, from which the following is taken: "The simplest means of persuading one's self of the presence of this cavernous venous network, which is particularly developed upon the posterior portion of the turbinated bone, is by inflating it with air. By hardening such an inflated preparation in alcohol, we may get very good sections for observation. This cavernous venous tissue is beautifully injected at times, when the injection succeeds, by inserting a tube in one of the jugular veins. From such preparations are the drawings (Figs. 5 and 6) taken. The venous network, joined everywhere by abundant anastomoses, lies between the periosteum and the mucous membrane, and is everywhere, in a distended condition, 1½–2‴ thick. The venous loops, in their main direction, are vertical to the bone, showing in the injected condition a thickness of ⅙–⅓‴, and have tolerably firm and thick walls. A firm cellular tissue unites the vascular loops with one another, so that on section we see merely a cavernous cellular tissue; we can obtain such a specimen (Fig. 6) only by a careful and successful experiment."

It would seem from this description that Kohlrausch, observing that the turbinated tissue could be inflated with air, endeavored to throw into it a common injection, from the jugular vein. This injection failed to reach the cavernous cells. But it did distend veins and loops which were adopted and figured by Kohlrausch as the mechanism of erection. These veins and loops represented, as he erroneously supposed, the structure he had previously observed, on section, in the alcoholic preparations, and are offered by him as such.

It will be perhaps conceded that practitioners are not generally familiar with this anatomy, of which they will readily make a practical application; and lest injustice should be done to the investigations of twenty years ago, the text and figures of Kohlrausch are here carefully reproduced.

◆

TWO CASES OF FRACTURE OF THE STERNUM.

BY J. N. BORLAND, M.D.,
Visiting Physician of Boston City Hospital.

Malgaigne in his Treatise on Fractures, translated by Dr. John H. Packard, opens Chapter VIII., on Fractures of the Sternum, as follows: —

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[1] Handbuch der Gewebelehre des Menschen, 5te Auflage; Leipzig, 1867, page 741.

"These fractures are extremely rare; but one case occurred at the Hôtel Dieu in the course of eleven years; and of nineteen hundred and one fractures observed in the Middlesex Hospital, Lonsdale noted but two of this bone."

In the Massachusetts General Hospital in this city, in the course of its fifty-four years of existence, I find but four cases reported; other cases have undoubtedly occurred, but were the result of direct violence, and so complicated with other injuries to adjacent parts that the individual character of the fracture of this bone is lost in the more general one of "injury of the chest."

In the now nearly eleven years which have elapsed since the opening of the Boston City Hospital, but two cases have been admitted previously to the one I have hereafter to report.

Malgaigne describes the fracture of the sternum as being caused as follows: First, by direct violence, in which the bone may be splintered into fragments or split longitudinally. Illustrations of this form are found in cases of individuals who have been run over by loaded carts, or who have been kicked in the breast by a horse, or who have been injured by gunshot wounds. Secondly, by indirect violence with muscular action, as, for instance, when the sternum has been broken by a fall, the patient striking on the back. In these cases, the broken ends are left in apposition or slightly separated. Thirdly, by indirect violence without muscular action, as shown in cases of fall from a height, where the sufferer strikes on the head, feet, or buttocks; in these instances the fracture of the bone results from counter shock, and is marked by the want of apposition of the broken ends, one shooting by and overriding the other, and from the shortening in front, causing a bending of the head forward. Fourthly, from muscular action only.

In Cazeaux's Midwifery, Chapter XIII., on certain diseases that may complicate labor, the final note (H) reads as follows: "It is possible for the sternum to be fractured by muscular effort during labor. Chaussier saw two cases of the kind, both occurring during the first abors of women from twenty-four to twenty-five years of age. At the oment the fracture took place, both the patients had the head thrown ack as far as possible, at the same time drawing strongly with the nds and pressing with the feet. These fractures are simple, transrse, and separate the sternum into two pieces. The symptoms are, st, sharp pain at the point of fracture; one of Chaussier's patients ard at the same time a crack, which caused her to exclaim that she l broken something in her breast. With this there is sometimes ormal mobility, and occasionally even crepitation. The diagnosis owever, far from easy. In one of Chaussier's cases the fracture not discovered until the tenth day. The treatment is simply a lage round the chest to prevent motion."

Malgaigne alludes to these cases of Chaussier's, which were reported in the *Revue Médicale*,[1] and says, "In one, the fragments retained their place; in the other, they were slightly separated." Two other cases similar to Chaussier's have been reported. One of these was observed by Messrs. Compte and Martin,[2] in which the patient was a woman thirty-five years old, who died on the fourteenth day after her delivery. The other was published by Dr. Lucchetti and Surgeon G. Posta;[3] in this instance the woman was twenty-five years old. The lesion was not diagnosticated for a week; the patient recovered in thirty-five days.[4]

Referring again to Malgaigne we find the following statement: "The throwing back of the head occurred in a case of another kind, related by M. Faget, professor in Mexico. A mountebank, displaying his strength in a public place, had leaned backwards to raise up with his hands and teeth a considerable weight; all at once he felt a severe pain in the sternal region, and fell over with a fracture of that bone.[5] There is, however, a marked peculiarity in these instances: all of them were seated above the articulation of the first piece of the sternum with the second."

These cases which I have mentioned above are all that I can find recorded of the fracture of this bone occurring as a complication of labor. The one I now report will consequently be, so far as I know, the fifth in the series.

K. S., an unmarried girl, nineteen years old, was admitted on the 9th of February last to the wards of the Boston City Hospital, with the following history. She was delivered of a child at full term on the 3d of February, six days before her admission. The labor was natural, of about fifteen hours' duration; the patient stated that she had a good deal of hæmorrhage at the time. She was attended by a midwife, whom I have since seen, and who asserted that there was nothing unusual about the confinement excepting that it was rather tedious. The girl was delivered on a folded quilt spread on the floor in the corner of the room. When daylight came and she was seen more distinctly, the midwife in attendance noticed that the patient was looking ill, and that she coughed somewhat, with some expectoration; in reply to questions, the girl stated that she had had cough and pains in her chest for the previous six months. The surroundings of the patient were poor, and her only bed, until she was removed to the hospital, was what could be made up on three or four chairs. On the fourth day after delivery she sat up on a chair; the room was chilly, and she thought she took cold;

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[1] 1827, iv. 260.

[2] Classical Dictionary of Medicine and Surgery, xiv. 70. Venice.

[3] Bulletino delle Scienze Mediche di Bologna, 1857.

[4] The report of these two cases may be found in the American Journal of the Medical Sciences for July, 1858, vol. xxxvi. of the New Series.

[5] Roger Dubos, Maladies de Sternum, Thèse inaugurale, Paris, 1835.

she had severe pain in the region of the uterus, and her cough was increased; she had numerous little creeping chills, and diarrhœa; but this latter symptom was easily controlled. The next day her cough continued quite urgent, with free expectoration of frothy mucus. Her milk had appeared before the child was born, and she put it to the breast quite soon after birth.

On the admission of the patient to the hospital, she appeared to be very ill, weak, and anæmic. She looked as persons do in some forms of Bright's disease of the kidney. Her complexion was clear and delicate, with the skin pale excepting in the cheeks, where there was a persistent flush. Her countenance had a look as if there was slight œdema. Her lips were pale; her tongue pale and moist. There was some cough, with pain over the sternum, which region between the breasts looked rather prominent. Nothing abnormal was discovered in the lungs on examination, but the heart's action was somewhat tumultuous, with a souffle connected with the first sound and heard loudest at the left side of the base. The abdomen was distended, soft, not tender to deep pressure; the lochia were offensive. Pulse, 145. Temperature, 104.5°. Respirations, 40.

She was ordered a large flax-seed poultice over the abdomen; vagina to be washed out three times daily with a warm, weak solution of carbolic acid. Milk punch to be often repeated. Five grains of sulphate of quinine were given in solution, three times daily; and ten grains of Dover's powder were administered at night.

February 10th. She had passed a good night, and taken her nourishment freely. A few dry râles were heard in the lower left side, on a ne with the axilla. Pain, which was felt here, was relieved by the ap- ication of two dry cups. Respiration was still hurried, and she felt in- ined to sit up in bed rather than lie down.

Pulse.	Temperature.	Respiration.
A. M. 144	A. M. 103.6°	A. M. 40
P. M. 144	P. M. 104.5°	P. M. 48

℞ Ferri sulphatis,
Potassæ tartratis,
Potassæ carbonatis . . . . āā ʒj.
Extracti gentianæ . . . . q. s.
M. ft. in pil. xcvi.

ave two, three times daily. Continue quinine and stimulants.

bruary 11th. Patient seems rather better this morning. I found itting up in bed; she makes little or no complaint of pain, coughs ttle, and the expectoration is slight and frothy. The lochia have ved, losing the offensive character. *Urine*, color normal. Re- neutral. Specific gravity, 1020. A trace of albumen. No

Pulse.	Temperature.	Respiration.
A. M. 126	A. M. 103.8°	A. M. [illegible]
P. M. 136	P. M. 103.2°	P. M. [illegible]

February 12th. From time to time she has referred to a slight pain over the middle of the sternum when she coughed. She says she felt this pain soon after the child was born, but not before. The amount of pain was not great, nor was it increased by the act of sitting up in bed: on the contrary, she seemed rather to be relieved by this posture and to breathe more easily. There has been some fullness in the sternal region, but from the slight degree of pain, from the appearance of the patient as suggestive of a certain amount of œdema, and from the natural enlargement of the breasts, I did not think of any injury to the sternum. Her complaints of pain in this part having been addressed to Mr. J. H. Burchmore, the medical house-officer on duty, he made this discovery: "On thorough examination of the part, distinct crepitus is felt: evidently a fracture of the sternum in the vicinity of the fourth costal cartilages." She was confident that the trouble did not exist before her confinement, and she does not know of any accident by which it was caused, or of any exact moment when the fracture took place.

Pulse.	Temperature.	Respiration.
A. M. 136	A. M. 102.5°	A. M. 38
P. M. 126	P. M. 102.8°	P. M. 30

No change of treatment.

Her debility was so great, with so much dyspnœa, that I did not feel that she could bear the bandaging of the chest. I advised keeping her as quiet as possible, and on her back, in a semi-recumbent position.

February 13th. Her general condition seemed a little better, but the swelling over the fracture appeared to be larger, and more painful to the touch, with a little emphysematous crackling. Last night she expectorated a little bright red blood. She sits up in bed most of the time.

Pulse.	Temperature.	Respiration.
A. M. 120	A. M. 102°	A. M. 36
P. M. 120	P. M. 102.5°	P. M. 32

February 14th. No marked change.

Pulse.	Temperature.	Respiration.
A. M. 128	A. M. 102°	A. M. 38
P. M. 120	P. M. 103°	P. M. 44

Vomits the pill ordered on the 10th inst.; the following is substituted:

℞	Ferri et quiniæ citratis	gr. clx.
	Vini xerici	℥ iv.

M. One drachm, three times daily.

February 15th. There appears to be an abscess forming over the point of fracture; otherwise no marked change.

Pulse.	Temperature.	Respiration.
A. M. 124	A. M. 101°	A. M. 48
P. M. 124	P. M. 101.4°	P. M. 46

February 16th. The abscess opened spontaneously to-day and discharges a small amount of pus. The patient says she feels relieved by it. She is still very anæmic, and cannot sleep in the recumbent position, because of severe pain in the breast. She takes plenty of nourishment and stimulants.

Pulse.	Temperature.	Respiration.
A. M. 120	A. M. 101.2°	A. M. 38
P. M. 139	P. M. 102.2°	P. M. 48

February 17th. Her general condition remains about the same. The cavity of the abscess is discharging freely; it apparently opens into the anterior mediastinum. The parts beneath the skin are dissected out, and the sloughing of the skin has made a round hole about one inch in diameter. Through this can be seen the rough fractured ends of the bone, slightly rubbing on each other, and to the left of the sternum, between the costal cartilages, a pulsating membrane, which is the pericardium.

Pulse.	Temperature.	Respiration.
A. M. 104	A. M. 101°	A. M. 40
P. M. 120	P. M. 102.2°	P. M. 42

February 18th. Patient continues about the same; has taken six ounces of brandy every day since entrance.

Pulse.	Temperature.	Respiration.
A. M. 92	A. M. 101°	A. M. 40
P. M. 112	P. M. 101.6°	P. M. 36

February 19th. Not as well as yesterday; is very pale; sits up in bed; complains of some pain over sternum, and a small bed-sore is forming on the nates.

Pulse.	Temperature.	Respiration.
A. M. 124	A. M. 99.8°	A. M. 50
P. M. 136	P. M. 102°	P. M 54

February 20th. Patient is again worse; still sitting up; her face and lips are very pale; her countenance is not indicative of pain, and she does not seem concerned about the cavity in the sternal region, which has apparently increased a little in size. The separation between the broken ends is more plainly marked than it was, and gives a rather better view of the deeper-seated parts. She continues to take plenty of nourishment: beef-tea, chicken broths, milk, and six ounces of brandy daily, with ten grains Dover's powder at night.

Pulse.	Temperature.	Respiration.
A. M. 136	A. M. 100.5°	A. M. 46
P. M. 144	P. M. 101°	P. M. 46

February 21st. She passed a very fair night; at early visit she was found still sitting up in bed, not complaining of pain; abscess discharging a little. Pulse 152, but of a fair character. Respiration gasping, 55. Temperature 101°. She gradually sank, and died at 11 A. M., on the eighteenth day after the confinement.

No autopsy could be obtained.

The above related case has certain features in common with some of the others. As one of Chaussier's was not recognized until the tenth day after its occurrence, so this was not detected until the ninth day afterwards, and the third day after her admission to the hospital. She resembled Dr. Lucchetti's case in this respect, in having been delivered by a midwife on a folded cloth on the floor, in place of a bed. In his concluding observations on his case, Dr. Lucchetti attributes the accident to the uncomfortable position of the patient, and to her having been assisted by the midwife, at the moment of parturition, to make strong efforts with the arms and limited extension with the abdominal muscles, thus drawing the sternum forcibly downwards. He speaks strongly in favor of a patient being delivered on a bed, with the legs in a state of relaxation on the thighs, and with the head and chest properly pillowed; this complication would thus be prevented from occurring.

In one respect my case differs from all the others, the fracture having taken place between the third and fourth bones of the sternum, while in all those quoted from Malgaigne the injury was above the articulation of the first bone with the second.

Once before it has happened to me to have the care of a patient with a fractured sternum, but this instance was one of those of the third head, namely, indirect violence without muscular effort.

In the summer of 1869, a large house was being built at Nahant. Two brothers, one of them, the older, being the contractor for the building, the other the painter, were sitting outside of a window, on a staging which was forty-five feet above the ground. The staging gave way and both the men fell, each striking on the piazza-roof, which was about half the way, and then falling off to the ground. The painter I found insensible, suffering from severe shock, and with shuddering convulsions. No bones were broken, and in three or four days he was walking about again, well. The elder brother was also insensible; his head was bent forward, and the back of the neck at the upper dorsal vertebræ was rounded out. The sternum was broken at the junction of the first and second bone. The fracture was transverse, the end of the upper fragment overriding and shooting beyond the lower. No other bones were broken, nor was there any particular mark, to actually prove the part struck in the fall; but from the nature of the break and the approximation of the ends, and the absence of bruises about the chest, I believe the bone to have broken from effects of counter-shock.

The man made a good recovery and now leads a most active life. He was kept in his house for some months, and it was not until the following spring that he could again do much, owing to severe pain on motion, in the spine and in the breast, which gradually yielded to the influence of tonics and opiates.

RECENT PROGRESS IN PSYCHOLOGY.

BY THEODORE W. FISHER, M. D.

LOCALIZATION OF THE CEREBRAL FUNCTIONS.

In spite of the apparently contradictory nature of the evidence, and of Brown-Séquard's opinion, based on this contradiction, in opposition to special centres for the mental faculties, the belief is gaining ground that there are distinct centres for all the cerebral functions. It is also the opinion of most recent writers, that all the mental faculties are functions of the brain. Dr. Carpenter, it is true, places the will outside and independent of the cerebrum;[1] but it is only by a confusion of scientific and metaphysical reasoning that he arrives at this conclusion.[2]

In the symptom aphasia, for instance, the connection between lesions of the third left frontal convolution and loss of memory for words is too much the rule to be disregarded. In a case reported by T. Clave Shawe, M. D.,[3] degeneracy began in this convolution coincidently with loss of will-power over the word-groups, supposed to be located here. The disease subsequently invaded the corpus striatum, producing right hemiplegia. It is now quite generally admitted that aphasia follows left-sided lesions because most people are left-brained, so that a person is at first embarrassed in trying to speak from his right brain, as he would be in trying to write with the left hand, and for the same reason.

This location for the memory of words is still further confirmed by the experiments of Ferrier, who finds that the centre for movements of the mouth and tongue in cats and dogs corresponds to this region in man. The researches of Hitzig and Fritsche in 1870, of Ferrier and Nothnagel, have been repeated with similar results by Dr. James J. Putnam of Boston, by a committee of the New York Society of Neurology and Electrology, and still more recently by MM. Carville and Duret, of Paris.[4] These observers all find motor centres for the various movements of the head, body, and limbs, apparently located in the gray matter of the anterior lobes. They also find a non-motor region in cats and dogs, which does not respond to the electric stimulus. It is situated posteriorly to the centre for the facial muscles, including the convexity and hinder parts of the brain.

This division, if it exists in man, corresponds to that of Van der Kolk and many others, who believe the anterior lobes to be concerned in ideation and the posterior in sensation or feeling. The relations of the convolutions to each other, to the basic ganglia, and to the columns of the cord, are well described by Dr. Callender in his Lectures on the

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[1] Principles of Mental Physiology (London, 1874), page 25.

[2] British Medico-Chirurgical Review, October, 1874. Recent Psychological Doctrines.

[3] British Medical Journal, May 2, 1874.

[4] Lancet, January 16, 1875.

Formation and Early Growth of the Brain in Man.[1] Also by M. Paul Berger, in a paper entitled Distribution et Parcours des différent Ordres des Fibres qui entrent dans la Composition de l'Axe cérébro-spinal, d'après quelques Travaux modernes.[2]

How can the anterior lobes be centres of motion and of intellect at the same time? Mind is the result of education, which depends on memory. The memory, so called, is a storehouse of organized, coördinated sensations and motions, with, in man, a limited region of abstract ideas and intellectual operations, intimately related to corresponding words. The ideas of words, *i. e.*, the organized memory of the acts necessary to pronounce words, as well as the ideas of all other associated movements, are probably located in the convolutions of the anterior lobes. There seem to be two kinds of motor centres, automatic and voluntary, located respectively in the corpus striatum and in the convolutions. Lesions of the former produce ataxic, and of the latter amnesic defects of speech, and of other movements.

The distinction between these two centres is made evident, as Dr. Laycock suggests, in a paper on Certain Disorders and Defects of Organic Memory,[3] by singing some familiar song, mentally and then vocally. The voluntary impulse is in the first instance confined to the ideational centres, in the latter case it is transmitted to the secondary or motor centre. Under certain conditions of mental abstraction or of somnambulism, for instance, this centre might perform the same act automatically and unconsciously. Dr. Laycock's application of the theory of reflex action to the highest cerebral functions is especially important and interesting.

DIPSOMANIA.

It is quite time this most prevalent form of insanity was practically recognized, not only by the medical profession, but by the public, through its courts and legislatures. No other form is capable of such adequate proof and abundant illustration. Leaving out all cases of accidental and deliberate drunkenness, morbid inebriety outnumbers all other forms of mental disease. Dipsomania was recognized by Salvatori, of Moscow, in 1817, as a "furor bibendi," and was minutely described by him, in its symptoms, pathology, and treatment, in a treatise entitled De Ebriositate Continuâ, Remittente, et Intermittente. He considered it a disorder of the ganglionic system. Dr. Druitt also regarded it as due to, or at least often accompanied by, neuralgia of the abdominal ganglia.[4] Sir R. Christison addressed the Royal College of Surgeons of Edinburgh sixteen years ago on this disease.

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[1] British Medical Journal, June 6, *et seq.*, 1874.

[2] Archives de Physiologie, Mars et Mai, 1874.

[3] Edinburgh Medical Journal, April, 1874.

[4] Medical Times and Gazette, 1862.

Of late, renewed interest has been awakened in the subject, in Great Britain especially, and much valuable testimony has accumulated. The following papers contain many useful opinions and statements of fact, namely, an address by Wm. C. Garman, Esq., President of the Midland Counties Branch of the British Medical Association;[1] a paper by Dr. James Russell, of Birmingham, on Alcoholism from a Clinical Point of View;"[2] and an article on Alcoholism in the *Medico-Chirurgical Review* for April, 1874. A bill was introduced by the late Mr. Dalrymple, in the House of Commons, in 1870, for "restraining habitual drunkards."[3] The medical witnesses were Drs. Boyd, Crichton, Peddie, Nugent, Mitchel, Forbes Winslow, Dalrymple, McGill, Christie, and Druitt, all of whom believed habitual intemperance to be in many cases a form of insanity, demanding state interference. "An act to provide for the interdiction and cure of habitual drunkards" is now in force in Canada.[4] It simply applies to inebriates methods of commitment and forms of restraint similar to those in use for other insane persons.

The relations between alcoholism and insanity are complex, and evidently deep-seated in the nervous organization. In the first place, dipsomania, like insanity, may be inherited or acquired. At the New York State Inebriate Asylum, one hundred and twenty-five out of three hundred and fifteen patients, in 1871, had intemperate ancestors. Dr. Kirkbride, of the Pennsylvania Hospital for the Insane, considers the causes of insanity and inebriety as identical. Dr. Brown testified before the committee of parliament that in his experience, in the cases of insanity ascribed to drinking, there was hereditary tendency to insanity in one third. Thus we see inebriety may descend from an insane or intemperate stock. It may produce insanity, idiocy, or inebriety. Dr. Howe finds intemperate parents in one hundred and forty-five out of three hundred idiots, and Dr. Dodge in fifty out of one hundred. Dr. Russell in half his cases of epilepsy and hypochondriasis finds alcoholism in the ancestry.

Acquired dipsomania is very often due to the same causes which tend to induce insanity, and this is especially the case in females. Sunstroke, blows on the head, nervous shock, hæmorrhages, loss of sleep, excessive pain, abuse of opiates for relief of pain, disordered menstruation, uterine irritation, puberty and the climacteric, the exhaustion from lactation, together with a long list of moral causes, are prolific sources of inebriety, as well as of insanity. Insanity itself is also a cause of inebriety. That inebriety produces insanity in many forms is well known. Dr.

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[1] British Medical Journal, July 25, 1874.

[2] British Medical Journal, November 14, 1874.

[3] See Blue Book, 1872, containing voluminous evidence taken by the committee.

[4] Edinburgh Medical Journal, September, 1870.

Kirkbride found, in six thousand eight hundred and ninety-nine cases, twelve hundred and forty-nine due to ill health, and six hundred and ten to intemperance.

Periodicity is also a feature in which dipsomania resembles recurrent insanity. All writers lay great stress on this peculiarity, and many insist that it is necessary to restrain a patient through a whole interval and treat him during the succeeding period of desire for drink, if a cure is expected. Mr. Mould reported to the committee the case of a lady sent to his asylum thirty times in ten years for morbid inebriety. A case of paroxysmal mania, occurring every month, is on record, and it is said the superintendent bewailed this patient's death, as it diminished his annual list of "recoveries," by twelve. It is to be feared the so-called recoveries in voluntary asylums for inebriates, where the average duration of treatment is but three or four weeks, are of this character.

In most cases treatment must be compulsory. Long abuse of stimulants implies an organic change in the nervous system, for the eradication of which a long time is required, with complete disuse of stimulants. Self-control must be slowly cultivated, and the brain reorganized without risk of relapse. It is true, dipsomania is a most intractable disease, but it may be cured by persistent restraint, and by that alone in most cases. The paper of Dr. Bowditch in the Report of the State Board of Health for 1874 reflects the general opinion of the profession on this subject. The inaction of our legislature in the past must, I think, be attributed to false theories in regard to intemperance, and to a reliance on prohibitory legislation. The alienists of this State, with others, have repeatedly petitioned for an inebriate asylum, without avail. The writer presented almost precisely the same views as Dr. Bowditch advances, before a committee of the legislature this winter, in advocacy of a petition signed by fifteen hundred physicians and other intelligent citizens for compulsory treatment of inebriates by the State. It was opposed by the representative of one voluntary asylum receiving State aid, and defeated by the selfish and unfair management of the superintendent of another, who wanted State aid. Aid to such institutions, useful in a limited way, does not relieve the public from responsibility for those startling crimes done by habitual inebriates. Neither is it economy to assist in providing a hospital for the convenience of the drunkard after his debauch. Both classes of drunkards should be restrained for long periods in work-house or asylum, and their labor made remunerative while a possible cure is in progress.

CRIME AND INSANITY.

The relations of crime to insanity have received careful consideration of late from writers of eminence. In 1868 appeared Dr. Despine's Psychologie naturelle, devoted almost entirely to analysis of the mental status of the criminal classes. Dr. Holmes's article on Crime and

Automatism, in the *Atlantic* for April, will give the reader a good idea of the book. Dr. Despine, attracted by the singular want of emotion displayed by most criminals, was led to a thorough examination of court records and other sources of information. He arrives at a belief in the entire absence of moral sense in this class. He says that free-will, which in the normal man is only controlled by the sense of duty, in the criminal has no such counter-balance, this sense being wanting. His acts are therefore mentally automatic, the result of the strongest instinct, appetite, or passion prevailing at the time. Most criminals are therefore morally irresponsible, no matter how great the crime as against society. Like brutes, savages, and idiots, they yield to natural appetites and passions, unrestrained and unreproached by any feeling of impropriety, although intellectually cognizant of the moral standards of society. Hence their remarkable *sang froid*, and the superficial character of any apparent reformation or conversion.

Dr. Thompson, Resident Surgeon to the General Prison for Scotland, at Perth, finds his experience confirmatory of the views of Despine. He recognizes various degrees of "moral insensibility."[1] In a previous paper on the Hereditary Nature of Crime[2] he adduces evidence of a criminal class with marked mental and physical traits of hereditary origin. The transformations of crime with epilepsy, dipsomania, and various forms of insanity, as well as its incurable nature, tend, he says, to prove its heredity. In his second paper, Dr. Thompson examines carefully the physical, intellectual, and moral characteristics of criminals, and their liability to insanity. He believes the majority of them are mentally deficient. Of juvenile offenders, one third are weak in mind. Of six thousand adults twelve per cent. were distinctly imbecile, epileptic, or suicidal, by the records. At Millbank, of nine hundred and forty-three there were two hundred and eighteen weak-minded, and thirty-four insane, besides the epileptics. This is one in twenty-eight insane, an astonishing proportion compared with the ratio of one to four hundred and thirty-two for England and Wales. Epileptics averaged one in one hundred. The frequency of recommitments is also a striking fact, showing the really small numbers of the criminal class, as well as the incurable nature of crime. Female thieves averaged from six to seven committals each, in seven years. On the records four hundred and fifty-eight persons counted as two thousand eight hundred and seventy-four prisoners. Of four hundred and thirty murderers, but one showed any remorse. They sleep soundly, as a rule, unvisited by nocturnal terrors or qualms of conscience. The frequent and motiveless emotional outbreaks, assaults, and disturbances of prisoners resemble similar attacks with the insane.

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[1] Journal of Mental Science, October, 1870.

[2] Ibid, January, 1870.

Dr. Nicholson, Surgeon in Convict Prisons Department of He Majesty's Civil Service, has an elaborate article on the Morbid Psychology of Criminals.[1] He divides convicts, as we have divided drunkards, into two classes, the accidental and the habitual. In reference t the latter he says, "There is an appearance of motive and self-interest just sufficient to prevent them from falling within the range of insanity. Disease of the brain stands next to consumption as a cause of deat Instances of simple perverted ideation are extremely common; such a a belief in the hostility of certain officers, suspicions that their food h been poisoned, that their time is up, or that letters due are withhel Belief in the injustice of their sentence is a universal delusion. H lucinations of hearing are very frequent, with occasional stories of m terious visitations or visions.

Space forbids further detail. The writer, as the result of five or s years' experience in connection with the city institutions, can fully c firm the above statements. In view of these facts, what treatm should be adopted? The general opinion is in favor of long sentenc for habitual criminals. This is just to the individual, protects societ and is economical. Prisons should be improved hygienically, and i their moral atmosphere as well. The fullest opportunities for lab should be afforded, with a percentage of wages reserved for the prisone or his family. Sentences should be gradually abridged in proportion t good behavior. Pardons should be rare. Hospitals for the crimina insane should be established, and capital punishment never inflicted, when there is suspicion of mental unsoundness. The criminal should have the benefit of this doubt in all cases.

PROCEEDINGS OF THE OBSTETRICAL SOCIETY OF BOSTON.

C. W. SWAN, M. D., SECRETARY.

JANUARY 9, 1875. DR. HODGDON, Junior Vice-President, in the chair.

Nævus. — DR. HOSMER related the case of a child five months old, which had had a small papule at the upper part of the sternum. When the child was two months old, this was evidently a nævus. During the third month there was no increase, but it afterwards grew rapidly, and became an inch and a quarter long by three quarters of an inch wide, and occupied the upper part of the sternum and base of the neck. Dr. Hosmer exhibited the ligature, which still preserved the exact form in which it had been placed about the tumor, and said: "By a mode of action herewith described, a single ligature may be made to effect what has hitherto been accomplished only by the use of two or more ligatures, in those cases in which the size or shape of a vascular mass renders it necessary to transfix the base at one or more points, and tie in separate portions. The procedure is as follows: Select a ligature, of ample length, and of a size and strength suitable for the mass to be tied; and for convenience of description, this shall be designated as L. Then take a small strong thread, twelve inches long, which shall be indicated by S. Now double S, and carry the two ends through the eye of a needle. Pass the needle through the base, of a nævus, for instance, and draw it along until only a short loop of S projects at the point at which the needle entered. Through this loop carry half the length of L. Now by making sufficient traction on the needle, L, doubled, will be drawn through the nævus, and then S can be laid aside. We then have L presenting on one side of the mass a loop, and on the other, two free ends or branches. Separate these branches and carry them around the mass, one on one side and the second on the other, and pass them through the loop in opposite directions, tying them in a single knot inside of it. To effect strangulation, make traction on the two ends of L, and when the required constriction is obtained, tie them in a common square knot outside the loop. The two free ends may next be carried around the pedicle which is now produced, and tied on the opposite side.

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[1] Journal of Mental Science, July and October, 1873, and April, July, *et seq.*, 1874.

"If the mass cannot be tied in two portions, two loops of L, instead of one as already described, can be carried through its base. In that case, after the free ends have been passed, each through its proper loop, that loop must be withdrawn through the mass, bringing with it a loop formed upon what was a free end. Before traction is made, all the slack of the ligature must be taken up carefully without disturbing this last arrangement of loops.

"In recommendation of this method, it may be said that it enables us to introduce a large ligature with a small needle, and thereby prevents hæmorrhage, which is at least an inconvenience in any operation. The loop, pressing upon the single knot tied within it, will maintain any degree of tension to which the ligature is drawn; thus giving an opportunity to know just what its action will be, and to relax and readjust, if that action is not satisfactory.

"If two ligatures are used, they are constricting in opposite directions, each towards its own centre; they may open still further some vessel which has been transfixed, and certainly do not reach the tissue which underlies the track of the needle. With a single ligature, the constriction is all towards a single centre, and the tension being everywhere equal, the strangulated base is brought very nearly into the form of a circle, thereby securing for any given length of ligature the largest possible amount of included material.

"By tying a common string upon two or three fingers in the manner described, the efficiency of this ligature may be brought to a practical test, and a comparison easily made between its action and that of the so-called cobbler's suture ligature, for instance.

"The application of this method to the pedicle in ovariotomy might obviate the fatal hæmorrhage which has sometimes occurred from insufficient ligature."

Dr. Wellington asked Dr. Hosmer if he thought there was danger in removing a nævus situated over the anterior fontanel.

Dr. Hosmer said he could not answer the question, but if the nævus showed a disposition to grow, he should not hesitate to remove it.

Miscarriage caused by Acute Desquamative Nephritis. — DR. CHADWICK reported the following case: "I was summoned to Miss E. P., eighteen years old, and six months pregnant, on August 10th. Two days before, she had eaten freely of unripe peaches and melon, and in the evening was taken with vomiting and acute pain in the right side of the abdomen. High fever, constant pain, with very frequent and painful micturition developed on the day preceding my visit. I found her very feverish, with no abdominal tenderness. Pulse 120. Tongue clean; thirst; some dull pain in the lumbar region; no dejection in five days. She assured me that no attempt had been made to produce abortion. A vaginal examination seemed to corroborate this statement. No indications of uterine action. No tenderness about the bladder. Sufferings referred to unripe fruit, for which half an ounce of castor oil was prescribed; this produced a thorough evacuation of the bowels in the night, with entire relief from pain in lumbar region. On the next day the pulse was 120; the respirations 40; the temperature 104° (in the mouth). The fever was high, micturition still frequent and painful. The urine contained no albumen by the nitric acid test. In the evening, micturition was less painful, but was still quite frequent. Little pain in lumbar region. No abdominal tenderness or uterine contractions. Tongue slightly coated. Vagina hot. Pulse 120; respirations 34; temperature (vaginal) 104.7°.

"August 12th. She reported having had recurrent abdominal pains since six A. M. Twenty grains of chloral hydrate was rejected at once. Tongue has a brown coat. Micturition is less frequent and less painful. Pulse 114. Patient has passed very little urine for last twelve hours; catheter brings away scarcely more than an ounce. Headache. Uterus contracting every ten minutes; os of the size of silver dime. The child was born at twelve M. and lived fourteen hours. Ten ounces of blood were lost during the delivery. At five P. M., the pulse was 96. Two ounces of urine drawn with catheter. No headache or backache.

"August 13th. Dr. Wood reports upon urine as follows: Acid, dark; specific gravity 1009; much sediment. Urophain diminished; uroxanthin increased; urea and chlorides much diminished; earthy phosphates diminished. Albumen one per cent. Sediment contains much epithelium, chiefly vaginal, but some renal and pelvic; much pus, few blood corpuscles. Many large, dark, granular casts with adherent epithelium, one large fibrinous cast. Diagnosis, acute desquamative nephritis.

"At the time of visit, the pulse was 100; vaginal temperature 101.8°; tongue coated; pain and tenderness in hypogastric region. Patient had passed considerable urine. No dejections; half an ounce of castor oil ordered.

℞ Tincturæ scillæ,
Tincturæ digitalis . . . . āā gtt. xxv.
Tincturæ opii . . . . gtt. xij.
M. Three times a day.

"August 14th. Backache relieved by a large poultice. Pulse 84; respiration 27; temperature (vaginal) 100°. No pain. Passed a quart of urine this morning.

"From this date the patient had no unpleasant symptoms. On August 19 but one or two casts could be found in two specimens of urine; albumen was still present, but in less quantity. On November 15th a specimen of urine examined by Dr. Wood revealed no trace of renal disease; albumen was absent."

Purulent Ophthalmia of New-Born Children. — Dr. Wellington reported a case of purulent ophthalmia in a new-born child. He inquired as to the frequency of the disease. He could recall but three cases in his own practice. The disease is rare, but when it occurs he believes it to be due to gonorrhœa, rather than to the far more common leucorrhœa. He had a strong impression that the former was the cause of at least two of his three cases. In one, the mother had had a thick purulent discharge a short time before labor.

Dr. Hodgdon stated that he had under treatment a case which he supposed to be derived from the nurse. The disease affects but one eye. The mother had leucorrhœa for some time previous to confinement. There was no reason to suspect specific poison.

Dr. Williams, appealed to, said there are rare cases which are not attributable to a vaginal discharge, but rather to the use of strong soaps, to cold, etc. Still, the most common cause is a vaginal discharge, probably leucorrhœa, although in some cases there are strong suspicions of gonorrhœa. The disease, he said, has been extremely common the last two or three months, and unusually severe. In this time he had seen more cases than previously in the past three or four years. In one case both corneæ, in another one were lost before he saw the patients; in another, one eye had been lost. The other cases did well. In one case the lids secreted a hard, thick lining, diphtheritic in character and capable of being detached with ease except at the central portion of the upper lid. The cornea became hazy, but fortunately leared up as the disease subsided. In these severe cases it is not uncommon or the cornea to become hazy. Even in the later stages of the disease, if not ooked carefully after, the eye may be lost.

Dr. Hosmer asked how the cases differ from those of gonorrhœal ophthalmia of adults.

Dr. Williams replied that they are not quite as severe as those of gonorhœic character, where the cornea sometimes becomes perforated in forty-ight, twenty-four or even ten hours after infection. There is not in children he straw-colored serous chemosis which is found in gonorrhœal ophthalmia. The average time before the discharge ceases depends on how early the case s treated. If the treatment be begun with the first symptoms, although great welling follow, the symptoms subside much sooner. If there is no active reatment, it may be three or four weeks before the eyes are opened, and he palpebral conjunctiva may remain thickened for two or three weeks onger.

Dr. Wellington said that in the case above mentioned he had used alum water with good result thus far, about a fortnight. He asked Dr. Williams's opinion as to treatment.

Dr. Williams spoke of atropia, nitrate of silver, and alum as among the remedies which had been frequently used. He considered nitrate of silver an unsafe, often very injurious remedy. Dr. Dix has said of it that it is a very bad treatment and has spoiled a great number of eyes. Dr. Williams thought simple cleansing with warm water might be sufficient, but he considered the most efficient treatment to be thorough hourly cleansing away of all discharge by means of a syringe, using alternately tepid water and a solution of from five to ten grains of alum in an ounce of water, the weaker solution being usually preferable. It is very essential that the pus should not remain, and if the quantity is very great the cleansing should be repeated in half an hour, as half a teaspoonful of pus may collect in that time. It is not necessary to cleanse so often in the night. These mild astringents cause no pain, and are always effectual when used as advised. Dr. Williams advised atropia as a precaution, in case of any haziness of the cornea, whether perforation exist or not. He had seen no reason to think atropia checks inflammation of the conjunctiva in the early stages. The solution for young children and very old people should be weak, two grains to the ounce being sufficient.

Dr. Hosmer stated that he had seen a case successfully treated by alternate cleansing with tepid water and alum water.

Dr. Hodgdon said that he had met with two cases in twenty years, not including one in the past month.

Dr. Wellington said that he had seen two cases the past year, and another twenty years ago.

Dr. Williams remarked that the ophthalmia neonatorum is not as destructive as the gonorrhœal ophthalmia of adults, and this is a strong reason for considering leucorrrhœa as the cause of the former. Were gonorrhœa the cause, the delicate tissues of the new-born child would, *a priori*, suffer more severely.

Dr. Nichols reported the case of a child with purulent ophthalmia in which Dr. Williams's treatment was successful. There was gonorrhœa. He questioned whether this was the same disease as gonorrhœal ophthalmia of the adult.

Post Partum Hæmorrhage. — Dr. Driver reported a case which was unique in his obstetrical experience. It was the case of a healthy, well-made woman, who, two years and five months ago, was delivered of twins. On that occasion Dr. Driver had been obliged to introduce his hand to remove the double placenta, adherent at its line of coalescence. Hæmorrhage occurred, and was controlled by ice and kneading. When first seen in the labor now reported, she had been having pains every five to seven minutes. Ten minutes before the child was born she took half a drachm of Squibb's fluid extract of ergot. The uterus was followed down with the hand. The lower edge of the placenta to the extent of about one sixth of its circumference was found adherent low down and a little forwards. It was removed and found to be morbidly thickened. A binder was applied, dry things substituted for the wet, and the patient was watched for three quarters of an hour after the labor, when she was left in good condition. Later, a messenger brought word that the patient wanted something for her after-pains, and morphia was sent. At five P. M. Dr. Driver saw the patient. She had pain, and her pulse was 125. She had taken three powders of morphia, one sixth of a grain each, at different times, and some ergot at three P. M. He found the uterus as high as the edge of the ribs on the left side; the right side was lower down, and "pudgy." Having first given the patient brandy, he removed large masses of clots with the hand, and found a condition of irregular contraction. Seizing the fundus on the outside with the other hand and exciting contraction with both, a very profuse discharge of blood took place, after which the uterus remained contracted. Dr. Driver had never before in the course of his practice met with such a pouring hæmorrhage from an irregularly contracted uterus five hours after delivery.

Brandy administered subcutaneously. — **Dr. Lyman** remarked upon the value of brandy injected subcutaneously. He thought thirty drops thus administered had a more immediate and stimulant effect than an ordinary dose by the rectum, the effect being extremely rapid and very satisfactory. It never produced abscess. The difference was more marked than that from the two ways of using morphine.

Dr. Hosmer remarked that he had used brandy subcutaneously in the case of a patient moribund with scarlet fever.

Dr. Homans referred to a case of ovariotomy in which the injection of brandy by Dr. Lyman raised the pulse.

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PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

JAMES R. CHADWICK, M. D., SECRETARY.

March 27, 1875. **Dr. F. Minot**, President, in the chair. Ninety members were present. The meeting was held in the Natural History Building.

Rooms for the Society Meetings. — The secretary, as the committee on rooms, announced that an informal invitation had been extended to all the medical societies to hold their meetings in the lecture-room of the Boston Society of Natural History, at an annual rent of about six hundred dollars. It was also stated that the trustees of the Provident Institution for Savings had agreed to reduce the rent of the rooms now occupied by the medical societies to one half of that heretofore paid. After a lengthy and spirited discussion, it was voted by a large majority that it was not expedient to move from the rooms in Temple Place.

In view of the notification which had been received from the Massachusetts Medical Society that the present lease of the rooms would terminate on August 15, 1875, the following vote was unanimously adopted: —

"*Voted*, That the treasurer of the society be authorized to sign — in connection with a representative of the Boston Society for Medical Improvement and the Boston Society for Medical Observation — a joint lease with the directors of the Provident Institution for Savings for the rooms now occupied by the societies, at a rent of six hundred dollars a year for a term of years, with the of privilege terminating the lease at any time by giving six months' notice."

Sarcoma of the Eyeball. — **Dr. B. Joy Jeffries** exhibited a patient twenty-one years of age, from whom, eight years previously, he had removed the left eyeball; in it there was found a sarcomatous growth starting from the ciliary region. The tumor filled the anterior chamber, and had begun to work its way through the sclerotic; this membrane was thinner than normal, and bulged at its junction with the cornea. The diagnosis of sarcoma was made by means of the microscope, and subsequently confirmed by Dr. C. Ellis. The importance of removing a globe thus affected is made evident by the perfect health of the girl ever since the operation; even in cancerous disease the chances of saving life by this measure are very great. A peripatetic quack had recently sold the patient a glass eye, worth six dollars at the most, for thirty-five dollars; his usual price, as alleged, being one hundred dollars. As the artificial eye did not fit, it had caused irritation and finally granulation of the lower lid; this is yielding rapidly to treatment, so that the girl will soon be able to wear a false eye without discomfort.

General Sarcomatous Disease in a Child. — DR. R. H. FITZ presented a specimen of round-cell medullary sarcoma taken from a child three years of age, one of whose relations had died of cancer of the breast. The disease, which had existed for about a year, was characterized at the outset by intermittent pains about the hips and thighs, suggesting rheumatism or hip disease. Three months later a tumor as large as a pigeon's egg was observed beneath the skin of the right thigh, about two inches below Poupart's ligament. It was adherent to the muscle and did not seem to increase in size. Nodular masses were vaguely felt in the left iliac region, soon after; lumps appeared in the groins, especially the left, in the axillæ, and in the neck; they were regarded as diseased glands. A projection of the right eye was first noticed six months before death, and gradually increased, although vision was not perceptibly affected. Within a month a nodule had appeared on top of the head, beneath the scalp. The emaciation was but slight until recently. There were no symptoms pointing to disease of special organs, but for a month past there had been twitchings of the extremities, especially on the left side, and death finally occurred with convulsions. It had been observed that the head had increased abnormally in size during the previous six months. The sarcoma had invaded the abdominal lymphatic glands, some of which were enlarged to the size of apricots. The left kidney contained two nodules as large as filberts. The mesentery was studded with masses of varying size, and the subperitoneal tissue, particularly of the left side of the pelvis and of the uterus, was very extensively infiltrated. Both ovaries were enlarged to the size of filberts, and were sarcomatous. Many of the nodules were exceedingly rich in blood-vessels; the tumor of the scalp pulsated. Under the microscope the cells were seen to be round, considerably larger than lymph corpuscles, and to contain, in most instances, a relatively large nucleus. The intercellular substance was mainly homogeneous, but was becoming decidedly granular; it sometimes fibrillated on the addition of acetic acid.

Fracture of the Sternum, with Cases. — In the unavoidable absence of DR. J. N. BORLAND, the secretary read his exhaustive paper on the above subject; it is published in the present issue of the JOURNAL.

Aneurism of the Aorta treated by Electrolysis. — Very full notes of this nteresting case, and a review of the whole subject, were read by **Dr. H. I. Bowditch**; they will be published in full. Dr. Bowditch stated, in reply to Dr. C. Ellis, that death had not occurred during the operation in any of the leven fatal cases that are on record, and that some patients had been able to esume work; his patient lived sixty days.

Considering the distance of the aneurism from the walls of the chest, **Dr. L. H. Fitz** suggested that the needles might not have penetrated the walls of he cyst. This possibility was not, however, admitted by Dr. Bowditch or the gentlemen who had assisted in the operation.

Dr. J. J. Putnam, in response to a question from Dr. Fitz, expressed the pinion that an organized clot would be softened by the current from the positive pole.

The list of delegates to the annual meeting of the American Medical Assoiation, presented by the nominating committee, was then unanimously elected.

A vote of thanks to the President and Fellows of the Boston Society of Natural History for the use of their lecture-room was then passed unanimously.

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THE CONCOURS IN FRANCE.

A question of considerable importance is now agitating the highest circles of the medical profession in France. New faculties of medicine are to be established in Lyons and Bordeaux, the preparatory schools hitherto existing in those cities having recently been suppressed. How shall the professors who re to constitute the new faculties be recruited? Shall they be appointed by he minister of public instruction, or selected by means of competitive examinaons?

It must be remembered that hitherto all appointments in the French medical hools, as well as in the medical staffs of the Paris hospitals, have been effected y means of the *concours*, with the exception of the professorships, which ere not subject to direct competition, vacancies being supplied by the minister om the ranks of the assistant professors. These, however, owe their office to e *concours*, so that it may be said that all appointments were the result of mpetition. Formerly the professorships also were competed for publicly, and e older members of the profession in Paris remember well, and fondly recall, e brilliant and exciting displays of eloquence and erudition which used to take ice in the crowded amphitheatre of the École de Médecine. Many of those o had taken part in these thrilling events, *laudatores temporis acti*, recall e old preëminence of the Paris Medical School, and go so far as to attribute e present comparative short-comings and somewhat stationary condition of ench medical science to the suppression of the *concours* for the highest gnity accessible to medical men. Among the younger generations of scienc men, however, the opinion prevails that the *concours* has ceased to be the st means by which to recruit the staffs of the schools and hospitals; it is ought that the present modes of research, whether purely scientific or practical, experimental or clinical, demand in their exponents originality as well as erudition and eloquence.

These adverse views have been advocated lately in the *Lyon Medical* (January 31, February 21, 1875). Dr. Diday, on the one hand, calls for the *concours*, with public dissertations, which, he maintains, is not only the most satisfactory, but the only means of securing the best teachers, while doing justice to all candidates. The professor, he says, must be eloquent; it does not suffice that he be skilled in the practice of his branch of medical art or science; he must above all be able to teach; and by the *concours* alone can his aptitude for professing be made manifest. Dr. Marduel, in answer to Diday, admits that the desiderata are that the best teachers be secured and that justice be done to all candidates, but he contends that under the competitive system exhibitions of oratory and of memory prevail over recognized scientific merit and originality. He proposes what he calls the "permanent *concours*," by which he means simply that the whole scientific career of a candidate be taken as the proof and measure of his merit. Let those, he says, who aspire to the highest professional dignities, devote themselves to tuition; pupils will spontaneously gather around those who have something to teach and who know how to teach, and the future professor will at once serve his apprenticeship and prove his fitness; it is thus that in Germany the *privat docenten* vie with each other in attracting pupils, reputation and office being the reward of the most successful.

Comparing the present condition of medical science in France and in Germany, there seems reason to believe that the modes of recruitment used in the latter country are preferable. The modes of research and of tuition now in use demand other qualities than those which distinguish the successful competitor in the French *concours*. The competitive system as applied in Paris not only favors cramming, but makes it altogether indispensable, to the exclusion, almost, of any other work, throughout the entire career of the candidate. As long as he has a *concours* ahead, the future competitor must devote all his energies and all his faculties to storing his memory and furbishing his weapons for future contests; consequently all original work, all special investigations are deferred till the top of the ladder is reached, which is hardly the case till maturity is attained or passed. Then come lucrative practice and enjoyment of the emoluments of the dearly bought situation, of which the most highly prized privilege is too often rest from labor. Certainly the *concours* is less objectionable for professorships, in which the object is *ore rotundo* tuition, than for hospital appointments. But even for teachers, is it true that eloquence is so preëminently valuable as to transcend all other qualifications? And are lectures the most important part of the work to be done by the teachers of medical students of our time, as seems to be admitted without question on both sides by the disputants whom we have quoted? There is room for doubt, at least, on this point. Indeed, any one who is familiar with the working of the Paris School of Medicine will recognize that the official lectures of the school play a very small part in the professional education of the best pupils; the *internes*, for instance, who are the *élite* of the students, rarely or never attend the lectures; their duties make it difficult for them to be present in the amphitheatres, should their taste or their interest take them there; the most promising and successful students are found, not in the lecture-room, but in the hospital ward, in the dissecting-room, in the laboratory, and in the recent growth of these and of experimental research is the hope of French medical science. The lectures, on the other hand, have an entirely distinct *clientèle ;* they are attended by pupils whose chief object is to pass their examinations; and that is about all that they are good for.

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THE AMERICAN MEDICAL ASSOCIATION.

The meeting of the association next week will open under unusually favorable auspices, and the attendance promises to be more general and of better quality than has been seen for many years ; at least such will be the verdict, we think, of those who have an opportunity of witnessing the bustle of preparation incident to the departure of delegates, and the arrangements now making at Louisville for their reception. The situation of the city, central as it is, gives assurance that the meeting will represent equally all parts of the country, and if the delegation about to depart from this city be a fair sample of the elements of which the meeting this year is to be composed, we shall look forward with fair hopes to see our national association produce something worthy of the name it bears.

A spirit of reform has, somewhat unwillingly, we must confess, been manifested by the leaders of this organization, the defects of which time and experience had made apparent. A huge association like ours, composed of large masses and heterogeneous elements, can be managed to advantage only by carefully prepared machinery specially adapted to the conditions of the case. The changes which have been made lately should now begin to show the advantages claimed for them, and if they prove successful we trust the leaders of the association will not rest from their labors of reform, but will keep a vigilant eye upon the dangers to which it is exposed and will be prepared to meet them. There has been prevalent in former years a sense of security and satisfaction in the condition of the association which has well-nigh proved fatal to its existence. It has, however, been subjected lately to a good deal of wholesome criticism, which has evidently not been lost upon its leaders. Moreover, the centennial celebrations, which are already upon us, will doubtless exert a powerful influence upon all national associations, whose records and standing will be subjected to unusual scrutiny. A movement is even now on foot to organize an international medical congress next year at Philadelphia, and is in charge of men who are not likely to fail in anything they undertake. The association will have a powerful rival in the field, and will do well to remember this next week in making preparations for the coming year. If the majority of men who go to Louisville this year have a sincere wish to raise the association to a standard which shall be approved by the profession throughout the country, let us say to them that they will never have a better opportunity to accomplish this much to be desired result than to-day, and we hope they will make the most of it.

MEDICAL NOTES.

— We learn from our Philadelphia exchanges that arrangements have been made to hold an International Medical Congress early in September, 1876, in Philadelphia, at which discourses will be read upon Medicine and Medical Progress in the United States; on Surgery; Obstetrics; Chemistry and Pharmacy; Materia Medica; Medical Jurisprudence and Toxicology; Hygiene and Social Science; Medical Biography; Medical Education and Institutions; and Medical Literature. The morning sessions will be devoted to general business and reading these discourses, while the afternoon sessions will be devoted to sections on Medicine, on Surgery and Anatomy, on Obstetrics, on Chemistry, Materia Medica, Hygiene, and Medical Jurisprudence, and on Ophthalmology and Otology. This congress will consist of delegates, native and foreign, representing the American Medical Association, the various State medical societies, and the medical societies of Europe, Mexico, the British Dominions, Central and South America, the Sandwich Islands, the East and West Indies, China, and Japan. The congress is to be organized by the election of a president, thirteen vice-presidents, seven of whom shall be natives and six foreigners, a recording secretary, two corresponding secretaries, a treasurer, an executive committee, and a committee on publication. It has been agreed that no vote shall be taken during the sittings of the congress upon any topic discussed or address delivered. The preparation of these discourses has been entrusted to able hands, and it is intended to publish them in an appropriate volume commemorative of the occasion. For the purpose of carrying out these arrangements a Centennial Medical Commission of Philadelphia has now been fully organized. The president of this commission is Dr. S. D. Gross, and the vice-presidents Drs. Ruschenberger and Stillé.

— Our French contemporaries are lamenting over the manner in which illegal practitioners are flourishing in Bordeaux and Lyons. By illegal practitioners, be it understood, is meant all those practitioners who are not provided with a diploma such as the French government requires. The editor of the Medical Journal of Bordeaux has proposed to form a committee of the society of physicians of Gironde, to protect the profession from the inroads of quacks and to follow up all cases of illegal practice in the courts. The *Lyon Médical* mentions the case of a man who fell several feet upon his head; although severely injured, he was able to walk home. The next day, feeling stiff about the neck, he visited a female quack, who without making an examination seized his head and twisted it forcibly in every direction, causing him so much pain that he fainted. He was taken home in a carriage, and Dr. Cappé, who was called in the night, found paralysis of all four limbs. Two days later the patient died. The reporter of this case remarks, "Such facts hardly need commenting upon, but they inspire a sad reflection, which is that if the doctors suffer from the illegal practice of medicine, the patients at all events die of it."

— The late Emperor of China died, it is stated, after eleven days' illness, from an attack of small-pox, which is making great ravages in Pekin. The help of foreign medical men had been persistently refused, and the emperor was attended only by his chief physician, Nona-Tzen.

—The trial of Mr. Edward Peacock, of England, for manslaughter, for his treatment of an obstetric case to which we have already called attention, wherein fifteen feet of intestine which descended through a rent in the vagina were cut off and removed, has terminated in a sentence of six months' imprisonment, and this unfortunate gentleman is now serving out his term. The English journals complain of trying a man guilty of malpractice for manslaughter, but here we have an item, clipped from one of our own exchanges, which far outstrips the latter as an instance of severe punishment: "At Brockville, Ont., April 1, W. G. Greaves and Dr. E. B. Sparkham were convicted of murder in causing the death of Miss Sophie E. Burnham, by malpractice. They were both sentenced to be hanged on the 23d of June." It evidently pays to get a thorough medical education.

SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. HOMANS AND INGALLS.]

THE following operations were performed during the week ending Friday, April 16, 1875:—

1. Strangulated hernia. 2. Cancer of breast. 3. Ulceration of rectum. 4. Cancer of breast. 5. Fistula in ano. 6. Cellulitis of leg.

1. *Strangulated Hernia; Third Operation.*— A laborer, forty-five years of age, entered the hospital on the 12th inst., with a large scrotal hernia on the left side. He had been operated on twice by herniotomy for strangulation in the same place; once in 1867, and the second time in 1872. The affection was first noticed in 1865. He has always worn a truss, but the intestine has escaped in spite of it. The present attack came on while the patient was walking in the street, about four hours before his entrance to the hospital. As soon as he reached home he went to bed, and was then attacked by severe pain in left groin and iliac region; this was soon followed by vomiting. A surgeon was called, who used taxis for some time without success. He was then sent to the hospital, and was seen by Dr. Homans.

There was a tense, firm tumor in the left side of the scrotum, eight inches in circumference, dull on percussion, and extending up to and above Poupart's ligament. After the patient had been etherized, taxis was tried a few minutes ineffectually. The tumor was then punctured in three separate places with the aspirator, but nothing was obtained. Dr. Homans then performed herniotomy, as the vomiting and dragging pain had been severe and persistent. On opening the sac it was found to contain nearly a foot of small intestine, of a dark claret color. Lying in front of the bowel was a large piece of omentum, of the same color as the bowel. Both were tightly constricted at the external inguinal ring, which was of the normal size. This had to be divided pretty freely before the contents of the hernial sac could be returned to the abdominal cavity. It was finally accomplished, and the external wound was closed with three silk sutures, and a graduated compress and spica bandage applied.

Four days after the operation, the patient was doing well. The bowels had moved spontaneously, and there was no undue swelling of abdomen, nor tenderness about the wound.

This case is peculiar from the fact that the patient had been twice operated upon successfully for strangulation, and the third operation bids fair to be success also. The hernia is old and very large, and hence is less liable to become strangulated, especially as the patient has not neglected his truss. A second operation for herniotomy is by no means common; a third one must be exceedingly rare.

2. *Cancer of the Breast.* — A domestic, aged forty-five, entered the hospital on the 8th inst., with extensive cellulitis of the left leg. An abscess formed just above the outer malleolus (a very common site for the formation of pus, as remarked by Dr. Ingalls), requiring free incision. With rest, good diet, and tonics, she soon began to improve. When nearly well of this trouble she called attention to her right breast, in which was a hard, nodular, painful tumor of nine months' duration. The skin was not adherent, nor was the nipple retracted. The tumor was freely movable, tender on pressure, about three inches in diameter, and situated in the outer half of the breast. The axillary glands were free from induration and enlargement. The general health of the patient was fair, and she was anxious to have the tumor removed.

The patient having been etherized, Dr. Ingalls removed the growth and entire breast. The hæmorrhage was moderate. The wound was closed with sutures. The tumor was encephaloid, and contained two large cysts filled with a soft sebaceous substance, and a smaller cyst filled with blood and pus. Under the microscope the intercystic portion was seen to be composed mostly of large, round or irregular nucleated cells, and granular matter. It was soft, friable, juicy, grayish-white, breaking down under moderate pressure between the thumb and finger.

Geo. W. Gay, M. D.

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LETTER FROM NEW YORK.

[FROM OUR OWN CORRESPONDENT.]

Messrs. Editors, — Since my last letter, the medical colleges here have closed their winter session, much to the relief of both students and professors. Bellevue graduated one hundred and ninety-five men, the University ninety-five, and the College of Physicians and Surgeons one hundred and eight. All of the schools have a spring session, which lasts until the first week in June; but it is poorly attended in comparison with the winter course, as the majority of students are from the country, and return to pursue their studies with their preceptors. At all of the colleges recitation classes are formed, and a portion of each day is devoted to this kind of instruction; besides, one or more didactic lectures are given daily on subjects not gone thoroughly into during the winter course. The clinics are of course kept up. At Bellevue the plan has been adopted of dividing the recitation classes into two divisions, a senior and junior. This is certainly a move in the right direction.

The plans of instruction in the University, and in the College of Physicians d Surgeons, during the winter course, are similar; both make didactic ctures the main feature, seeking to drill their students in the principles of the ofession for which they are fitting themselves, while clinical instruction has ss prominence.

Bellevue, on the other hand, makes clinical instruction its main feature, sing the amphitheatre of Bellevue Hospital for that purpose, and holding vo or three clinical lectures there daily, at which all of the students are resent. Theoretically it may seem the better plan of the two, but practically does not work well; the temptation to see cases and operations before they re thoroughly informed in the pathology and symptomatology of disease is o great, that the majority of students rush off to the hospital before they re able to understand what they see.

A year or more ago, the board of trustees of one of our new hospitals ppointed a lady under the title of "resident directress," as the executive officer, n the place of a male superintendent, under the impression that the position ould be better filled than by a medical man, or one accustomed to the duties of such a position. It was not favorably considered either by the profession at large or by the attending staff. It has proved a failure, and it is now a question whether the board will appoint a new executive officer or a new attending staff, as there is a constant clashing of authority between the directress and the medical gentlemen; the former constantly ignores the latter, and will hold no intercourse with them.

By a resolution recently passed by the Commissioners of Charities and Correction, the medical board of Bellevue Hospital has again been changed, and the resolution passed last July rescinded. In order to understand clearly the position of affairs, an account of the old service, and the connection of Bellevue College with the hospital will be necessary. When Bellevue Hospital Medical College was organized, in 1861, most of the gentlemen of the attending staff, who were not connected with any school, became members of its faculty. This gave the new school a very large representation in the medical board, which it has never lost. In June last, of the eighteen members of the attending staff, Bellevue had ten, the University two, the College of Physicians and Surgeons three, and the outside profession three. In July last, through the influence of three or four medical gentlemen, who were hostile to Bellevue, and were acting in the interest of the University and the Twenty-Third Street Medical School, the commissioners passed a resolution reorganizing the medical board of the hospital, and dividing the service into four equal sections, giving one to each of the colleges and one to the outside profession, making the board to consist of sixteen members. It was also ordered that any vacancy occurring in any division should be filled by and from the class in which the vacancy occurred. This retired six Bellevue men, the loss of whom crippled that school very much, as its course of instruction has always been more clinical, and less didactic, than that of either of the other schools. It was evident that the aggrieved party only wanted the power, and the fight would be renewed. This came sooner than any one expected. In January last the old board of commissioners was removed and a new one appointed by the political party in power. The result has been that the new board, through strictly political influence, has been won over to the Bellevue College interest. bring about this, the Governor of the State is said to have come down fr Albany, with the result of putting back all the old staff, by increas the medical board to twenty-four members in accordance with a resolut passed March 11th. Immediately on this change being ordered, one of attending staff, not connected with any college, resigned his position, stating the commissioners that as they had broken faith with the profession he clined to hold any position in either of their hospitals. It is rumored th changes are to be made in the medical board of Charity Hospital, in the iterest of the same school. Already certain political magnates have stated th certain of their friends must go on the board.

There is an unfortunate rivalry among the medical colleges here, which i getting more and more bitter, the end of which no one can foresee; but it i certain that no real good can result from political wire-pulling, either to the colleges themselves, or to those who have been active in using political influence to bring about very questionable changes.

By the death of Dr. Delafield, the College of Physicians and Surgeons lose their president. The election of Dr. Alonzo Clark to that position would no doubt be very acceptable to the profession, but there is no one to fill his place as professor of theory and practice. The late Dr. Anstie, of London, was offered the place, but he felt compelled to decline on account of family ties. I have heard the names of Dr. Willard Parker and Dr. Buck mentioned in connection with the presidency, but it is only a rumor, and I give it for what it is worth.

The resignation by Dr. F. H. Hamilton of the position of professor of surgery in Bellevue College was a surprise to the profession at large. He will be a great loss, as he was considered one of their ablest instructors. The cause of his withdrawal is the same that compelled Dr. Hammond, a year ago, to sever his connection with that college — misunderstanding with the ruling power in the faculty. It is understood that Dr. W. H. Van Buren will fill his place next winter. It is rumored that changes may take place in the other medical schools.

The physicians who were appointed some time ago, by the Board of Health, to investigate the cause and origin of diphtheria, with special reference to the theory that it is due to bacteria, have made but little progress, on account of the difficulty of obtaining either post-mortem examinations or diphtheritic membrane, as the epidemic is almost over.

There is a great want in the lower part of New York of hospital accommodations; it is in this portion of the city that the greatest number of accidents occur, and valuable time is often lost before proper relief can be obtained. Patients have to be conveyed three or four miles in order to reach the nearest hospital. To meet this want, the Society of the New York Hospital propose erecting, in different parts of the city below Fourteenth Street, small hospitals, containing about twelve beds each, placing them in charge of a house-surgeon, an assistant, and the necessary subordinates. The patients received into these hospitals will be removed to the general hospitals as soon as they are able to bear transportation.

EEKLY BULLETIN OF PREVALENT DISEASES.

llowing is a bulletin of the diseases prevalent in Massachusetts during ending April 24, 1875, compiled under the authority of the State Health from the returns of physicians representing all sections of :—

hitis, rheumatism, pneumonia, and influenza prevail in all parts of the A noteworthy increase of sickness is reported to have occurred coin-with the severe weather of a week ago.

rkshire, diphtheria has increased somewhat.

Connecticut Valley, the intestinal disorders whose prevalence was st week still continue. Diphtheria is a little more prevalent than it week. Ashfield reports cases of meningitis.

rcester County, there has been a marked decline in the prevalence of ia, and an equally marked increase of pneumonia. Westboro' reports ia as having a continued local influence.

Northeastern section, scarlatina prevails; some reporters refer its to recent climatic changes.

Metropolitan district, measles and rötheln continue. Scarlatina has l during the week. Whooping-cough is more prevalent than at any e January 1.

Southeastern counties, whooping-cough and scarlatina have increased. n measles" (rubeola) is common in some parts of this section.

heria is mostly in Berkshire; scarlatina, measles, and whooping-cough ir field of maximum prevalence in and near Boston.

F. W. Draper, M. D., Registrar.

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ARATIVE MORTALITY-RATES FOR THE WEEK ENDING APRIL 17, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
rk	1,040,000	572	29
lphia	775,000	361	24
n	450,000	181	21
is	450,000	102	12
. . . . . .	350,000	142	21
nce	100,000	34	18
er	50,000	15	16
. . . . . .	50,000	18	19
lge	44,000	7	8
er	34,200	18	27
ce	33,000	18	28
eld	33,000	10	16
. . . . . .	28,000	13	24
. . . . . .	26,000	10	20

Middlesex South District Medical Society. — At the Annual Meeting, April 21 the following were elected: President, G. J. Townsend; Vice-President, W. W. Wellington Secretary, C. E. Vaughan; Treasurer, J. W. Willis; Librarian, E. J. Forster; Commissioner of Trials, A. Hosmer; Censors, S. W. Driver, E. R. Cogswell, E. J. Forster, J. Hildreth, H. E. Marion; Councillors, G. J. Townsend, M. Wyman, H. Holmes, O. Hunt, W. W. Wellington, A. C. Webber, J. L. Sullivan, H. O. Marcy, L. R. Stone, J. T. Nichols, J. S. Whiting, H. C. Chapin, H. P. Walcott, J. W. Willis, B. F. D. Adams, E. Vaughan, E. R. Cutler; Delegates to the American Medical Association, W. W. Wellington, M. Wyman, J. L. Sullivan, R. L. Hodgdon, B. F. D. Adams, H. O. Marcy, C. Vaughan, H. P. Walcott, E. J. Forster, A. L. Norris, J. T. G. Nichols, J. L. Hildreth, B. Adams, G. J. Townsend.

Boston Society for Medical Observation. — The next regular meeting will be held on Monday evening, May 3d, at eight o'clock. Dr. O. F. Wadsworth will read a paper Retinitis in Bright's Disease.

The General Meeting of the American Social Science Association for 1875 will begin Detroit on the 11th of May next, and continue four days, or until the reading and discussion of papers are ended, should they occupy less time. Papers and reports are expected from many eminent men. The subject of school hygiene will be discussed and papers relating to this subject will be read by several well-known Boston physicians. Sectional meetings will be convened during the session, so that no paper submitted need fail to be read and fully debated. The meetings will be held in the City Hall. All members of the association and the public generally are invited to attend, but only members of this association, members of branch associations, and those persons specially invited will be expected to take part in the proceedings. All members of State and City Boards of Public Charities, all managers of charitable institutions, and other persons acquainted with the subjects included under the general head of Public Charities, are invited to attend the conference on the 12th and 13th of May.

Suffolk District Medical Society. — At the annual meeting, held last Saturday evening, the following officers were chosen for the ensuing year: President, Henry W. Williams; Vice-President, Charles D. Homans; Secretary, James R. Chadwick; Treasurer, A. B. Hall; Librarian, B. J. Jeffries; Commissioner of Trials, Charles W. Swan; Reporter, A. L. Mason; Committee of Supervision, George H. Gay, Samuel A. Green; Committee on Social Meetings, Calvin Stevens, Geo. W. Gay, H. I. Bowditch, J. P. Oliver; Censors, Thomas Waterman, J. Collins Warren, Edward N. Whittier, G. G. Tarbell, A. M. Sumner; Councillors, S. L. Abbot, J. Ayer, H. H. A. Beach, H. J. Bigelow, J. N. Borland, H. I. Bowditch, B. Brown, C. E. Buckingham, S. Cabot, P. M. Crane, D. W. Cheever, Hall Curtis, H. Derby, F. W. Draper, C. Ellis, R. H. Fitz, G. H. Gay, J. O. Green, S. A. Green, F. B. Greenough, A. B. Hall, G. Hay, D. H. Hayden, R. M. Hodges, C. D. Homans, J. Homans, W. Ingalls, J. B. S. Jackson, J. F. Jarvis, B. J. Jeffries, F. I. Knight, G. H. Lyman, F. Minot, W. W. Morland, H. K. Oliver, C. B. Porter, J. P. Reynolds, W. L. Richardson, G. C. Shattuck, A. D. Sinclair, D. H. Storer, C. W. Swan, J. B. Treadwell, J. E. Tyler, O. F. Wadsworth, C. E. Ware, J. C. White, H. W. Williams.

The Boston Medical Association. — The Annual Meeting of the Association will be held on Monday, May 3, 1875, in the rooms, No. 36 Temple Place, at four o'clock P. M.

Notice to Delegates to the American Medical Association. — Boston to New York (Norwich Line), reduced price for round trip, $6.00. Trains leave Boston (depot at foot of Summer Street) at 6 P. M., connecting at New London with steamers arriving in New York at 6 A. M. Passengers by this route going to Philadelphia cross to Jersey City by the Desbrosses Street Ferry from pier below Norwich Pier. Trains from New York to Philadelphia leave at 8.35 A. M. and 5 P. M. Price of tickets $3.25 each way; no reduction. Philadelphia to Louisville. Reduced price for round trip on Baltimore and Ohio Railroad, $24.00. Fast express leaves Philadelphia at 6 P. M., reaches Cincinnati at 7 P. M. the next day, and Louisville at 12.30 that night. Tickets may be obtained at 87 Washington Street. Reduced rates are for delegates and their families. Tickets good until used.

THE BOSTON
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CASES OF OVARIOTOMY.

BY S. CABOT, M. D.,
Surgeon of the Massachusetts General Hospital.

CASE I. — M. P., a married woman, thirty-three years of age, entered e Massachusetts General Hospital, November 7, 1874. Five years o, immediately after her sixth confinement, she noticed a tumor in the ft iliac region about the size of a cocoa-nut. This gradually increased size, and was accompanied by occasional attacks of severe darting in in the abdomen. Two and a half years later, the tumor then being out the size of an adult head, the woman again became pregnant, and full term, after an easy labor, gave birth to a child which she says eighed fourteen pounds.

The tumor now grew more rapidly, and the pains in the abdomen, hich had entirely disappeared during the last six months of gestation, turned with greater frequency. Two weeks previous to her entrance the hospital the patient was seized with severe pain over the whole bdomen, which was very tender on pressure. This pain and tender-ess soon passed off, leaving her as well as before. I saw her soon fter, in consultation with Dr. Ellis, in whose ward she then was. The iagnosis of ovarian cyst had already been established, and confirmed y aspiration. The fluid, which was of a yellowish-brown color, conained finely divided fat with some crystals of cholesterine. The tumor, hich was of a smooth, globular form, extended from the pubes nearly the ensiform cartilage, and equally into either flank. It was adherent ver a large part of the abdominal wall. On vaginal examination the terus was found to be normal in both size and position, and freely ovable. An operation was decided upon, and, it being deemed desir-ble to remove the patient as much as possible from hospital influences, y the liberality of the trustees of the hospital a pleasant, airy room as provided in a private house.

On December 6th, with the assistance of Drs. C. B. Porter and J. . Warren, I operated after the method described and practiced by pencer Wells. After puncturing the cyst, a sheet of thin rubber pel-cle, with a hole in the middle, was slipped on over the trocar and tied

with rubber tubing behind the opening in the sac, thus preventi
age, which had already commenced, from reaching the abdome
tensive adhesions to the abdominal walls, omentum, and intestin
separated by the hands without causing any bleeding of imp
The pedicle, which was quite long and thick, was clamped and
out through the incision, whose edges were united by means of
ized silk sutures. Cotton-wool dressings saturated with carb
were then applied, and the patient was put to bed.

The sac, which was quite thick, had growing from the inne
number of small bunches of hair, and one well-formed incisor t
contained seven pints of an opaque fluid, of the color of *café a*
suspended in it were numerous cheesy lumps and some free hair

The patient vomited somewhat upon coming out of the ether
third of a grain of sulphate of morphia was introduced into h
During the afternoon she was entirely free from pain, but
moderately two or three times. She took milk and lime-water
quantities. At six P. M., seven hours after the operation, her temp
was 102.7° ; pulse 112.

In the night she vomited slightly, and had a fit of dyspnœa w
focative cough.

December 7th. She was comfortable in every respect; to
and lime-water, and beef-tea. Her average temperature was
pulse 124.

December 8th. Still free from pain, but somewhat troubled b
and dyspnœa, for which she took small doses of carbonate of
and ipecac. Average temperature 102.6° ; pulse 116.

December 9th. The dressings were removed, and the wo
united throughout the greater part. Two deep sutures were
The patient was comfortable all day. Average temperatu
pulse 109.

December 10th. The remaining sutures were removed,
unscrewed, and the slough on the pedicle cut off. Average t
101° ; pulse 107.

The patient convalesced rapidly after this, although an ulc
for some time where the pedicle had been brought through
January 9th she menstruated ; she noticed no difference
and former menstruations. March 3d she was discharged
at that time a granulating surface about the size of a five-

CASE II. — A. F., twenty-three years old, married
Massachusetts General Hospital February 1, 1875. She ha
fifteen months, but had had no children. One year ago s
in the abdomen a swelling, which began in the right side
in size steadily and rapidly. During the last five mont
more or less pain in the abdomen. She has lost much fle

From the time she first noticed the tumor her bowels were loose till two months ago, since which time they have been constipated. Catamenia used to be irregular, but they have been regular during the last two years till eight weeks ago, when she began to flow, and has continued to do so up to the present time.

I saw her in consultation with Dr. Ellis. The tumor filled the abdomen from the ensiform cartilage to the pubes, extending equally into both sides. It was divided into several parts by ill-defined sulci, and was found by palpation to consist of several distinct cysts. A superficial wave of fluctuation could be detected, indicating the co-existence of ascites. On a vaginal examination the sound would not enter the cavity of the uterus, which was strongly anteverted and fixed. The diagnosis was made of a multilocular cyst, either adherent to the posterior wall of the uterus, or attached to it by a very short pedicle. Although the condition of the woman, and the apparent close connection between the cyst and the uterus, made the case an unfavorable one for surgical interference, yet an operation was decided upon as giving her the best, and in fact the only chance of recovery. The same room was procured which was occupied in the previous case.

I operated on February 20th, assisted by Drs. Porter and Warren. There were no unusual features about the operation. The abdomen contained several pints of ascitic fluid. The tumor was multilocular, and adherent to the abdominal wall, to the omentum, intestine, and brim of the pelvis. Two bleeding points in the omentum were tied. Four cysts required puncture. The pedicle was found to be long and thin. The right Fallopian tube had attached to it several small cysts. The left Fallopian tube was distended with serous fluid, which was let out by a small puncture. The right cornu of the uterus was elongated, and had attached to the end a wen about the size of a horse-chestnut. This latter was removed, and the bleeding stopped by actual cautery. The pedicle was brought out through the lower angle of the wound, which was closed by silk sutures, and covered with a dressing of cotton-wool and carbolic oil. The tumor, which was composed of an innumerable number of cysts, great and small, contained a turbid serous fluid, and with its contents weighed twenty-four pounds.

The patient vomited moderately on coming out of her ether, and continued to retch at intervals for two hours; she then began to have pain in the lower part of the abdomen and in the pelvis; this was controlled by a quarter of a grain of sulphate of morphia given subcutaneously. She was comfortable through the afternoon, dozing much of the time. At 4 P. M. her temperature was 102.3°; pulse 108. At 5.30 P. M. her temperature was 103.1°; pulse 118. She was bright and comfortable, though with a slight feeling of nausea. At 8 P. M. she began to retch and vomit. She was given small pieces of ice to suck, and soda water in small quantities; this, however, failed to control the vomiting, which continued all night. In the morning an enema of beef tea was given, but it immediately returned. She failed rapidly, and died, exhausted, about twenty-six hours after the operation.

Autopsy. — The incision was united everywhere except around the pedicle; the deeper parts especially were very firmly united. The abdominal cavity contained about two thirds of a pint of bloody serum The intestines were covered with lymph, and firmly glued together and to the anterior abdominal wall. The left ovary, which had appeared normal at the time of the operation, was in a state of very acute inflammation. The mistake of diagnosticating close adhesions between the tumor and the uterus was explained by the elongated form of that organ, which caused it to be jammed by the tumor across the superior strait of the pelvis and firmly held there.

I have lately received from a woman whom I operated upon in the summer of 1869 a letter, of which I will give a brief abstract.

She entered the hospital in the latter part of May of that year. She was in a very exhausted condition, due in a great degree to a long-continued violent purging which she had undergone with the hope of reducing the tumor, but which, failing in its object, had greatly reduced the patient. At her earnest entreaty she was operated upon earlier than would have otherwise been deemed advisable, and while still quite weak. The tumor was unilocular and non-adherent. The pedicle, which was too short to reach the incision, was tied and dropped back into the abdomen, the ligature being brought out through the incision. She made a slow recovery.

Soon after her return home she was married, and has since been once confined. She writes that her health has not been as good as it was previous to the spring of 1869. She has not been troubled by pain in the abdomen. Her catamenia were regular until her confinement, but since then have been irregular, and she has been troubled somewhat with leucorrhœa. Her labor was a hard one, and the child, which was still-born, was a female, well nourished, and weighing nine pounds. She felt quite well after confinement, but thinks that she overworked herself at this time, as she has not been as well since. She feels better during pregnancy than at other times. She is now pregnant for the second time, and, with the exception of neuralgia about the head, is quite well.

[A note received while the foregoing was in press states that the woman was delivered, April 27th, of a healthy boy weighing ten pounds; the labor was normal.]

CEREBRAL SYMPTOMS DUE TO DISEASE OF THE EAR. (MÉNIÈRE'S DISEASE.)

BY S. G. WEBBER, M. D., OF BOSTON.

MANY patients complain of dizziness and noises in their ears, with other symptoms causing discomfort. The dizziness seems to be the most distressing sensation in some cases; in others the noises in the ears cause the most trouble, or there may be headache, nausea, and vomiting. Trousseau called attention to the fact that cases supposed to be apoplectiform cerebral congestion are generally epileptic in character. Ménière referred many such cases to disease of the internal ear. The conclusions at which he arrives from the study of a large number of cases are given in the proceedings of the Académie de Médecine for January 8, 1861: —

"'1. An auditory apparatus previously healthy may become suddenly the seat of functional disturbance, consisting in noises of different kinds, continued or intermittent, and these noises are soon accompanied with a greater or less diminution of hearing.

"'2. These functional disturbances, situated in the internal organs of hearing, may give rise to symptoms apparently cerebral, such as vertigo, giddiness, uncertain gait, circus movement, and falling, and moreover they are accompanied with nausea, vomiting, and a condition of syncope.

"'3. These symptoms, which are intermittent, are quickly followed by deafness more or less complete; and frequently the hearing is suddenly and completely lost.

"'4. There is reason to believe that the organic lesion which is the cause of these functional disturbances is situated in the semicircular canals."[1]

In consequence of this communication, attention was called more particularly to this lesion; and M. Ménière has himself published a detailed account of several cases. He reports one in which the autopsy showed disease of the semicircular canals. A young girl was received into the hospital having severe vertigo; the slightest motion caused vomiting. The brain, cerebellum, and cord were healthy. A reddish plastic exudation filled the semicircular canals; hardly any traces of this were found in the vestibule, and none in the cochlea.[2]

These communications have caused M. Ménière's name to be associated with such attacks depending upon disease of the internal ear. Dr. Deleau (jeune) has, however, claimed priority in describing this condition, as he published in 1838 a *brochure* entitled Des Effets pathologiques de quelques Lésions de l'Oreille moyenne sur les Muscles de l'Expression faciale, sur l'Organe de la Vue et sur l'Encéphale."[3]

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[1] Bulletin de l'Académie de Médecine, xxvi.

[2] Gazette médicale de Paris, 1861, page 598.

[3] Gazette médicale de Paris, 1861, page 50.

I have not seen this book, and can therefore say nothing about this claim. Brown-Séquard pointed out that irritation of the auditory nerve would cause vertigo and convulsive and rotatory movements.[1]

During my term of service in the department for nervous diseases at the Boston Dispensary, several cases were seen illustrating the connection between lesion of the ear and the symptoms referred to.

John C., aged thirty-seven, had felt dizzy for three or four weeks before presenting himself at the dispensary; he was worse when he looked up suddenly; the dizziness had been steadily increasing; he thought his hearing was as good as usual, but there was evidently a marked diminution of this function, though it was not tested by a watch. He had no tinnitus, no headache, but at times neuralgia on the left side of his head in the temporal region. There had been a slight pain in his right arm for a short time. Both membranes were found opaque and slightly congested at their upper part. He was referred to the Eye and Ear Infirmary, and Dr. C. J. Blake diagnosticated chronic catarrhal inflammation of the middle ear. The man said that after one insufflation he felt better.

Another patient, after taking a bath in the salt water, was dizzy and had noises in his head; there was a slight headache and inability to walk straight; there was also a sense of choking and dyspnœa, with a pain in the left side on exertion; at times his eyesight was dim. These symptoms had continued fifteen or sixteen months when he came to the dispensary. His face was bloated, there was no paralysis of the face or tongue. A watch could be heard at a distance of an inch with the right ear, only on contact with the left. Once in a while the patient sighed heavily. Both ears were packed full of wax. Glycerine was dropped in, and two days later an attempt was made to syringe the wax out. A plug about half or three quarters of an inch long was removed from one ear, that in the other could not be started. Two days later the second plug of cerumen was removed. At that visit he expressed himself as much relieved; his hearing was better, he looked brighter and less distressed. He was told to return at the end of a week, but has not been seen since.

Another patient, after a cough and cold, had headache and was dizzy; the ground seemed to turn round. His gait with his eyes shut was very unsteady; he staggered to the right, somewhat as a patient with locomotor ataxia; he could not stand with his eyes shut and his feet near together. He heard a watch with the left ear at about a foot distance; with the right at about two feet. A large plug of wax was in the left ear. The right membrane was thick, of a dull color, and concave. He was referred to the Eye and Ear Infirmary.

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[1] Lectures on the Physiology and Pathology of the Central Nervous System, 1860, page 195.

Flourens first called attention to the effects of lesion of the semicircular canals. His experiments have since been repeated by many observers.

When the horizontal canals of an animal are injured, he turns his head from side to side, and finally his body partakes of this motion and rotation follows. When the inferior vertical canals are injured, the head is moved up and down, and the animal has a tendency to turn somersaults backwards. When the superior vertical canals are injured, the motion of the head is likewise up and down, but the tendency is to turn somersault forwards. In most cases of disease all the semicircular canals are probably affected, and a result is obtained similar to that found in animals in which these are all injured. There is a confused sensation of loss of equilibrium, and this may be so severe as to lead to vomiting and inability to walk, or even to temporary loss of consciousness.

The cases reported above were all of a rather mild character. Several years since, I saw among my private patients a lady with a peculiar combination of symptoms, of which some explanation may be found in the experiments referred to above. The lady was over fifty years old, and had been a sufferer for eight or nine years. At first she had dizzy spells only two or three times a year. About five years before I saw her she had a dull pain in her head, a distress in the head, and noises in the right ear; sometimes a "fluttering between both ears;" then a clicking in the right ear, a sawing, roaring noise; then all would be still, and she would soon experience a "shock" even to the end of her toes, comparable to an electric shock; there had been, finally, a tendency also to jerk the head backwards. There was no motor or sensory disturbance in the limbs, but a slight numbness on one side of the head. At first objects seemed to swim around her, but this sensation had changed so that it seemed to her as though she was pitching over and over around an axis passing through the body from side to side. The attacks did not last long, but left her head feeling badly. She had been deaf with the right ear five or six years.

An autopsy made in 1872 shows how a medico-legal value may be attached to lesions of the internal ear. A man was found in the street at night insensible; he was known to have taken liquor during the evening in company with others. A fracture of the skull with rupture of the middle meningeal artery was the cause of death. The temporal bone over the internal ear on both sides was much congested, and in the left internal ear were several drops of pus. This condition of the internal ear would justify the supposition that he had an attack of vertigo just as he had gone up the steps of his house, and that he had fallen and so fractured his skull.

RECENT PROGRESS IN OPHTHALMOLOGY.

BY O. F. WADSWORTH, M. D.

Decussation in the Chiasma. — The question of total or partial decussation of the optic nerves in the chiasma, of no inconsiderable clinical importance, can by no means be considered as definitely settled. The results of the anatomical investigations of Mandelstamm and Michel, which seemed to show total decussation, were given in this journal[1] a year ago, but they were not wholly convincing. Cohn[2] reports five cases of hemiopia, with measurement of the field of vision by the perimeter. One was of traumatic origin, and vision was finally recovered over the whole field; the other four followed apoplectiform attacks, and were left-sided; three at least were stationary; the fourth was lost sight of. In none of these cases did the line dividing the blind from the still acting parts of the retina pass through the disc, and in none did it in both eyes pass directly through the point of fixation. The dividing line was never exactly vertical, though sometimes nearly so. In all cases there were greater or less defects in the peripheral parts of that half of the field which remained. Förster[3] has given the perimetric measurement of a case of hemiopia in which the line of demarkation is not vertical in one eye, while there are peripheral defects in the sound half of the field in both. Bernhardt[4] states that perimetric measurement in a case of aphasia showed evident right-sided hemiopia, but also the sensitive halves of the retinas were not wholly intact. Illing[5] also reports a case, carefully measured, in which the line of division was not vertical, and there were peripheric limitations. Mauthner,[6] however, found with the perimeter in a case of hemiopia an exactly vertical line of demarkation, and perfectly normal extent of the left half of the field for both eyes. The last case alone offers a typical example of semi-decussation as it has been assumed, and probably in many of the cases which have been reported as similar to it the shape and extent of the field of vision was not examined with sufficient accuracy. To explain the other cases referred to, something more than Wollaston's semi-decussation theory is apparently needed.

Scheel[7] sought the course of the fibres in the chiasma of animals and man by examination of sections made in various directions, and convinced himself that there was total decussation. Experiments which he made on rabbits and kittens, by enucleating one eye and endeavoring to trace the consequent atrophy backward along the nerve, failed or were imperfect on account of the short time which was allowed to elapse before the animals were killed; two of them, however, in kittens, seemed to point to total decussation.

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[1] Boston Medical and Surgical Journal, xc. 454.

[2] Monatsblatt für Augenheilkunde, 1874, page 203, Juin–Juli.

[3] Annales d'Oculistique, tome lix., page 22, 1868.

[4] Berliner klinische Wochenschrift, 32, 1872.

[5] Wiener medicinische Zeitung, 23, 24, and 25, 1874.

[6] Oesterreichische Zeitschrift für praktische Heilkunde, 1872.

[7] Inaugural Dissertation, Rostock, 1874.

The results arrived at by Gudden[1] were different. He formulates them as follows: 1. In all animals whose field of vision is separate for the two eyes there is crossing of all the fibres of the optic nerves. 2. In all animals (and hence in man) which have a common field of vision for the two eyes there is only partial crossing of the optic nerves.

Gudden points out the great difficulties that exist in the way of accurate solution of the question in the higher animals by means of sections, on account of the great fineness of the fibre-bundles; still, by careful comparison of successive sections, he found even in man some bundles which did not cross. Much more convincing, because easily capable of demonstration and demanding no elaborate preparation of the specimens, were the results of experiments in which one or both eyes of newly-born rabbits and dogs were enucleated, and the condition of the nerves and optic centres observed after the animals had reached maturity. These demonstrated the correctness of the principle stated above. When one eye of a rabbit has thus been removed there is found complete atrophy of the corresponding nerve and opposite tract; also atrophy of the opposite optic thalamus, corpus geniculatum externum, and of a bundle of fibres winding around the pedunculus cerebri, which Gudden has named tractus peduncularis transversus, and which appears to be dependent on the presence of the retina for its existence. In the dog, under similar conditions, both optic tracts, both optic thalami, corpora geniculata externa, and tractus pedunculares transversi are seen to be smaller than normal. The discrepancy is greater on the side opposite to the enucleated eye, but also on the same side these parts are very evidently below the normal standard. Again, in an adult dog whose optic nerve-centres on the right side had been destroyed by operation immediately after birth, although the right tractus opticus was wanting, both optic nerves were present, both smaller than normal, the left smaller than the right. From these results it would appear that in the dog the number of fibres which cross is greater than of those which remain on the same side.

On two points all recent observers are agreed; namely, that there is no anterior commissure, and that, although a posterior commissure exists, it has no physiological relation to the optic nerves.

Color of the Macula Lutea. — Led by the difference between the apparent color of the macula lutea as seen by the ophthalmoscope — a dark reddish-brown — and the yellow color generally ascribed to this part of the retina, Schmidt[1] examined an eye immediately after enucleation from a living subject, another, with light-brown iris, four hours, and a third, with bluish-gray iris, one half-hour after death. In all the macula was of a dark reddish-brown color, just as it usually appears with the ophthalmoscope. In one of these cases the second eye of the same individual was removed and opened twenty-one hours after death, and the well-known straw-yellow color with darker centre, as usually described, was found. At the same time in the other eye, which had been opened early, the macula was still brown, though its margin had taken on a yellowish tint. Schmidt concludes that the yellow color is only due to a post-mortem change.

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[1] Archiv für Ophthalmologie, xx. 2.

Coefficients of Refraction of the Ocular Media. — The measurements of the indices of refraction of the aqueous and vitreous humors made by Krause and Helmholtz have been generally accepted as correct. They gave to the vitreous a somewhat greater refractive power than to the aqueous. Fleischer[2] reinvestigated the subject, according to a more accurate method given by Abbé, and found, on the contrary, that the aqueous had the greater coefficient of refraction. As the material Fleischer used was not quite fresh (so far as human eyes were concerned), Hirschberg[3] made another series of investigations by Abbé's method, with fluids obtained a shorter time after death. His results agreed very nearly with those obtained by Fleischer. He gives the index of refraction of the aqueous as 1.337, that of the vitreous as 1.336.

Woinow[4] examined the refraction of the lenses of three freshly enucleated eyes, from a young child, a youth, and an adult. He found (1) the older the individual the greater the index of refraction of the lens; (2) the nucleus has the greatest index of refraction ; (3) the difference between the indices of refraction of the different layers remains the same at different ages, and does not diminish with increasing age.

Action of Calomel on the Conjunctiva. — Kammerer[5] had calomel dusted upon the conjunctiva of his own eye for a long time, and took the opportunity to decide the disputed question whether calomel used in this way acted only as a mechanical stimulant, or also by absorption (as bichloride). He collected his urine twice for the period of a week in a large flask, added hydrochloric acid in excess, and then allowed a piece of gold-leaf wrapped in tin-foil to hang by a platinum wire in the fluid for fourteen days. In neither of these two experiments could he discover a discoloration of the gold-leaf from amalgamation after drying but on bringing it to a red heat in a narrow glass tube closed at one end a small amount of sublimate was obtained, in which minute globules of mercury could be seen with a magnifying glass. The sublimate was then carefully heated with iodine, and the product had the characteristic yellow color of iodide of silver. Two similar experiments with the urine of two patients on whose conjunctivæ calomel was dusted gave a like positive result; in one case the gold-leaf was also discolored. It must therefore be assumed that the calomel in contact with the fluids in the conjunctival sac is partly transformed into bichloride of mercury, as such is absorbed by the mucous membrane, and acts chemically on the fluids and tissues of the eye.

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[1] Centralblatt für die medicinischen Wissenschaften, No. 57, 1874.

[2] Inaugural Dissertation, Jena, 1872.

[3] Centralblatt für die medicinischen Wissenschaften, No. 13, 1874. Archives of Ophthalmology and Otology, iv. 2.

[4] Monatsblatt für Augenheilkunde, 1874, page 407.

[5] Virchow's Archiv, lix. 467.

Pyramidal Cataract. — Poncet[1] had the opportunity to examine the eyes of a child affected with double congenital pyramidal cataract. He found that the cataract, a cone two millimetres in height and in diameter at the base, was inclosed by the anterior capsule, unchanged in transparency or thickness, but thrown into folds towards the summit. On the anterior surface of the capsule were scattered pigmented cells; these were more numerous on the cone, especially near the summit, but also were present beyond it. At the base and about it the cells were round, but toward the vertex they became large and branching. The substance inclosed in the cone was granular, traversed by striæ parallel to the curved surface of the lens, and inclosed here and there cavities in which were collections of cells. The base was well defined against the lens substance, and somewhat convex backward. Nowhere in the cone was there anything which reminded one of the capsular epithelium, or which resembled degenerated lens fibres. Up to the base the normal epithelium was in place beneath the capsule, but here it left the capsule and extended for a certain distance between the cataract and the lens substance. There was no attachment of the cataract to iris or cornea; the iris presented no appreciable lesion, and the cornea showed no sign of rupture or ulceration; the membrane of Descemet was intact, and its epithelium regular, but there were little groups of pigmented cells lying against it. Near the edge of the cornea these pigmented cells were more abundant, and in certain parts there appeared a purulent collection in the meshes of the ligamentum pectinatum. From these appearances Poncet believes the theory of Hulke and others, that subcapsular pyramidal cataract is due to proliferation of intra-capsular cells, which push forward the anterior capsule and afterward degenerate, is incorrect. There occurs rather, in consequence of an inflammation in earliest infancy, an adhesion of a small part of the anterior capsule to the cornea, and when, in the course of the development of the eye, the anterior chamber deepens and the lens is pushed back, the capsule is drawn out in the form of a cone before its adhesion to the cornea is ruptured.

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[1] Archives de Physiologie, No. 6, 1874.

As the cone is thus formed, the epithelium separates from the capsule and the cone is filled by an exudation and perhaps the remains of some lens fibres which have been drawn forward with the capsule.

This view would agree well with that of Horner[1] regarding the development of "inflammatory capsular opacity," *i. e.*, subcapsular opacity following inflammation of the iris and neighboring tissues. Behind the fibrous-looking layer with interspaces containing cells, which lies beneath the capsule in such cataracts, Horner found an apparently unbroken single layer of regular cells, continuous at the edge of the opacity with the normal epithelium of the capsule. He therefore is disposed to consider the newly-formed layer as the product of the passage of fluid and cells through the capsule from without, instead of, as in the general acceptation, arising from proliferation and degeneration of intra-capsular cells.

Treatment of Amblyopia by Santonine. — Schoen,[2] believing that the action of santonine is to increase the excitability of all those fibres of the retina sensitive to color, regards its employment as indicated in diseases which diminish the excitability of the retina, atrophy, and particularly amblyopia due to alcohol and tobacco or anæmia. He has used it in a number of cases, and with better effect than he has seen from strychnia or other treatment. Two cases he relates briefly. Both patients were smokers, both improved rapidly under treatment. The dose was 0.3 gramme daily.

Schenkl,[3] on the other hand, in a notice of Schoen's monograph, states that santonine was employed in Hasner's clinic in twenty cases of disease of the opticus amenable to treatment, without any success in a single case.

(*To be concluded.*)

KÜSS'S LECTURES ON PHYSIOLOGY.[4]

After a somewhat careful reading of this book, we do not hesitate to call it, on the whole, the best treatise on physiology, of its size, now to be found in English. There are larger ones, fuller at all points, like Carpenter, Flint, and Marshall; fuller on some points but less complete on the whole, like Dalton, and Draper; there are smaller ones, like Huxley, and Cleland; and there are the treatises of Kirkes and of Bennett, which are of about equal length with that of Küss. But Küss, although by no means free from what may be called crotchets, gives nevertheless a more equitable picture of the science than Bennett, whose mind is devoted to peculiar theories and hobbies; whilst over Kirkes, Küss has the advantage that every investigator has over a compiler, of looking at the subject everywhere with his own eyes, and describing things in a much more vivid and interesting way. Kirkes's exposition, though clear and judicious, is fearfully pale and commonplace, while Küss's style, especially in the original French, is full of vivacity and elegance, and abounds in picturesque epithets and bits of description, which serve both to fix the reader's attention and to impress his memory. There is nothing new in the plan of the book but a good many opinions in regard to details are new; many, we fear, more new than true, at least more new than certain. The author appears to have discovered simultaneously with Virchow the deep-reaching importance in physiology and pathology of the cell-doctrine; and the most marked characteristic of the book is perhaps the constant stress laid upon the epithelial globules, under which term the author would include the gland-cells, since they have the same embryonic source. He conceives of many processes as vital which are usually ranged under the physico-chemical head; all phenomena of absorption and non-absorption, for example. The epithelium of the stomach is almost entirely non-absorbent; so is that of the bladder. But in the intestine, absorption occurs by the intermediation of the epithelial cells, which, bathed in the chyle, grow at its expense, and then, voiding the contents which they have elaborated from it by an ill-understood process into the vessels of the villi, they fall into decay themselves, and are replaced by a new crop. The use of the bile is "to sweep the workshop clean in which the laborious task of absorption has just been completed." There is, as every one can see, much in all this that lacks direct verification, but it is all hypothesis of a good sort, suggestive and likely to be fruitful of new observations. The same cannot be said of Küss's adoption of Parchappe's theory of the valves of the heart, nor of his theory of the intercostal muscles, which is no doubt partly, but only partly, true. He says their sole use is to keep the intercostal spaces smooth and tense during the fluctuations of internal and external pressure that occur. When they are lamed, as sometimes in pleurisy, we find the lung grooved transversely by the bulging inwards of the space. No doubt they have this office, and it is his merit to have called attention to it, but direct observation shows that during ordinary breathing no other muscles act to raise the ribs; and the contraction then observed of the visible intercostals during inspiration does do this, while it also, as Küss says, must resist the in-sucking tug of the diaphragm.

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[1] Monatsblatt für Augenheilkunde, 1874, page 462.

[2] Die Lehre vom Gesichtsfelde, 1874.

[3] Vierteljahrschrift für die practische Heilkunde, i. 1875.

[4] *A Course of Lectures on Physiology.* By Professor Küss, of Strasbourg. Edited by Mathias Duval, M. D. Translated from the Second and Revised Edition by Robert Amory, M. D. With 150 Wood-Cuts. Boston: James Campbell. 1875.

The chapters on the urinary system and on the genital system are among the best in the book. The author thinks that the secretion of urine is composed of two distinct phases: first, simple filtration in the glomerulus; second, return by the epithelium of the convoluted tubes of certain useful parts of the filtrate, for example, albumen, into the blood. There is no proper sphincter of the bladder. The embryologic chapter is poor and short.

On the whole, Dr. Amory has performed his rather thankless office well. We have noticed a few slips in the former half of the book which we hope a second edition will cancel. We recommend the book especially to medical students, although we cannot help expressing the wish that some one may translate for their benefit Fick's wonderful little Compendium der Physiologie, which is just the book to use in connection with lectures. They give the experimental details, while Fick gives in a beautifully clear form, and without superficiality, all the well-founded results and laws.

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THE BOSTON LYING-IN HOSPITAL.

Two years ago the trustees of the Boston Lying-In Hospital decided that the time had come to re-open the hospital, which had for so many years been closed. Accordingly, a suitable building was purchased in McLean Street and the present hospital was opened January 1, 1873. The first printed report since the re-opening of the hospital has just been published.[1] From we learn that during the past two years three hundred and forty-two women have received treatment within its walls, and that only three of the patients have died from any cause which could be in any way associated with the hospital.

The average cost of each patient to the hospital has been about thirty dollars. The average stay of each patient in the hospital has been about twenty-three days, and the average number of patients in the hospital at a time has been about eleven. The funds of the institution are sufficient to carry on the hospital at its present capacity of only eighteen beds. Owing to the limited accommodations the physicians have been frequently obliged to refuse urgent cases. The trustees close their valuable report with an earnest appeal for donations by which the advantages of the hospital may be at once extended to at least double its present capacity. The visiting physicians, in their report, which accompanies that of the trustees, state that applications for admission are received almost every day from women who are utterly destitute of money and friends, and who beg to be allowed to come and work for their board till the time of their confinement. Most of these cases have to be refused simply because there is no room. As one of the benefits of its organization, the hospital has been able to supply a large number of wet nurses. We trust that this excellent charity will receive the increasing favor which it richly deserves.

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FOWLER ON THE URINE.[2]

We have here a little book of seventy-two pages, which is divided into six parts, as follows: Part I. treats of the characters of normal urine, in fifteen pages; Part II. of the characters of abnormal urine, in five pages; Part III. of urinary deposits, in thirty-one pages; Part IV. of albumen, sugar, and bile, in eight pages; Part V. of the quantitative estimation of sugar and urea, in seven pages; Part VI. of gravel and calculi, in six pages.

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[1] *Forty-Second Annual Report of the Boston Lying-In Hospital,* January 1, 1875.

[2] *Examination of the Urine.* By George B. Fowler. New York: D. Appleton & Co. 1874.

From the amount of space devoted to some of the above subjects, it will be seen at once that their treatment must necessarily be very incomplete. Nothing can be worse for a beginner than to have such an incomplete guide to the examination of urine placed in his hands, since he is left entirely in the dark upon many important points, and is misled in regard to others. The book is chiefly chemical and microscopical, but even the ordinary methods for determining an increase or diminution of the normal constituents are not given, nor the precautions which are necessary in performing some of the important tests. For example, the necessity of removing albumen in testing for urea by nitric acid is not alluded to, nor the danger of mistaking a zone of acid urates for one of albumen in performing the nitric acid test for the latter.

In the preface the author states, "In teaching the subject I have become convinced that a few words regarding the conditions which produce the various changes in the urine, normal and abnormal, have very greatly assisted the student in mastering the subject, by at once revealing its practical import. I have, therefore, introduced here brief outlines of the physiological and pathological influences which bear upon the subject." A fair example of these "brief outlines" is the following, which is *the whole* of the physiology and pathology of urea which the book contains: "Urea represents the worn-out nitrogenous elements of the body. It is excreted at the rate of about five hundred grains per day. If, through any derangement of the functions of the kidneys, urea is not thrown off by the urine, it accumulates in the circulation, and acts as a poison upon the nervous system, inducing what is called uræmia."

E. S. W.

THE STATE BOARD OF HEALTH.

LIKE its predecessors, the Sixth Annual Report of the State Board of Health embodies the results of much excellent work. Few can have taken it up without a sigh for our loss by the death of the former secretary, but we are cheered by many evidences that Dr. Derby's work will live long after him, and that the board will maintain its high reputation.

One of the most striking papers is that by Dr. Henry I. Bowditch, on Inebriate Asylums and Hospitals. It is refreshing, after the heat of fanatical discussion, to find the temperance question treated temperately, and those who differed from Dr. Bowditch concerning prohibition have here abundant proof that he is not blind to the evils of excess nor disposed to leniency in its punishment. He recommends that the drunkard be deprived of his civil rights for a longer or shorter time, according to the number of his offenses, and also that the State establish inebriate asylums for purposes of reform. There is little to criticise except the practicability of the suggestion. We imagine that in many cases it would be very difficult to establish the fact of drunkenness and that its definition would be as difficult as that of insanity. Some witnesses would vouch for the defendant's sobriety as long as he had not actually tried to light his pipe at the pump, while others would be inclined to look on any accidental excitement as a sign of intoxication. Dr. Bowditch's idea of what an asylum and its superintendent should be is simply admirable, but we fear that such perfection can hardly be obtained till human progress has been so great that the asylum would be unnecessary.

There are three papers bearing on the question of meat. One by J. C. Hoadley, Esq., discussing the transportation of animals by rail, one by Dr. Folsom, on the effect of disease of the animal on the health of the consumer, and a third on the condition of the Brighton abattoir. We are glad to learn that, though there is still room for improvement, great reforms have been made in the manner of transporting animals from the West. Though truly scientific sources of knowledge are scanty, there can be no reasonable doubt that the flesh of an animal killed in good condition must be more healthy than that of one exhausted or greatly terrified. We do not know that any marked harm comes from eating the bodies of animals that are not absolutely sound, but it is best to be on the safe side. Dr. Folsom states the case very judiciously: "The antiseptic effect of good cooking, and the great power of the system to select and assimilate what it requires and to reject what is superfluous or injurious, probably in most cases protect active, vigorous persons from the harmful effects of eating unwholesome meat. But for the weak and the sick, and for all who live under the complicated circumstances of a highly civilized life, demanding of their brains and muscles all the work that can be got out of them, it is manifestly of the greatest importance to have all the conditions of living as perfect as possible, and to admit no source of even possible injury into their systems. Nor should we be deceived by the seeming tolerance of evil influences which our organs manifest by long habit." Dr. Folsom recommends rigid inspection, and we hope his advice will be heeded. The reports on the Brighton abattoir give the impression that, great as its success has been, it is not yet in perfect working order, and requires strict supervision.

We hope to discuss, on a future occasion, some of the other papers published in this report.

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BOSTON COMMON.

THE bill intended for the preservation of the Boston Common has received the signature of the governor, and has now become a law. The act is general in its character, and provides that no street, canal, railroad, or street railway shall be laid out or constructed over any public common or park which has been appropriated to public use uninterruptedly for twenty years or more, and that no part of such common or park shall be taken for widening or altering any street previously constructed, without public notice and the consent of the inhabitants of the city or town in which the same are located. The notice must set forth specifically what portion of the common or park is proposed to be taken, and it must give thirty days at least before the taking can be accomplished. The consent of the inhabitants, however, shall be presumed to be granted unless within thirty days of the publication of the notice as many as ten legal voters of the city or town request a vote of the inhabitants. A vote must then be taken by ballot at a meeting duly called by the mayor and aldermen of a city or selectmen of a town, and a majority of the voters present and voting shall be necessary for the expression of such consent. The act also provides that no lands of any public institution belonging to the commonwealth shall be taken for street or railway purposes, without leave of the legislature.

This legislation will, therefore, prevent in the future any such hasty action on the part of the city government, as has been attempted, and as has nearly succeeded, more than once during the past half-dozen years, for the purpose of taking a strip from the Boston Common. It is quite certain that there will be found at least ten men in the city on the alert to give an alarm to the citizens in case another invasion should be attempted.

AN INTERESTING INQUEST.

A CASE has recently occurred in this vicinity which illustrates so well the value and importance of a thorough autopsy that we call special attention to it. The facts are briefly as follows: A train on the Old Colony Railroad came late in the evening upon the body of a woman lying upon the track; there was not time to stop the train before the body was struck, and in consequence the woman's arms were torn from the trunk and the walls of the chest were thoroughly crushed, the wheels having apparently passed directly across the thorax. The train was immediately stopped and the police were presently on the spot. On examination, it was found that there was no life in the body and that its surface was cold. The occurrence became the subject of inquiry by a coroner's jury the next day. In the course of the inquest, it came out that the woman had been visiting, early in the evening or in the afternoon of the day of the railroad accident, at the house of her sister-in-law; that her brother-in-law was present at the time; that loud words passed between all the parties; that the deceased was urged to drink but apparently refused; and that the exclamation, "Don't choke me, Johnny," was heard, as if addressed by the deceased to her brother-in-law. This testimony introduced new elements into the inquest. It was impossible to rest satisfied with the apparent cause of death and to render a verdict that death was caused by the railroad accident for which the company was not to blame (such being the usual form); the question arose whether the woman was already dead when the body was struck by the engine, and whether in that case the death was the result of physical violence or of poison.

The decision of these important points rested mainly on the skill and thoroughness with which the post-mortem examination was conducted. The duty of making the autopsy fell to Dr. O. F. Rogers, of Dorchester; he was assisted by Dr. Gilbert. It is evident that the duty was not shirked, and that great credit is due to Dr. Rogers for his minute and painstaking search for anatomical evidence in this case. We cannot quote the entire report of the physicians, but we present such extracts as bear on the interesting question of the immediate cause of death:—

"Over the right malar bone there was a lacerated wound one inch in leng
A similar wound extended across the nose, which was crushed and forced the left. Beneath the left eye there was another laceration, about one inch length. These wounds were surrounded by bluish-red discolorations, whi when incised showed very slight extravasations. The skin of the face in t immediate neighborhood of the wounds was slightly stained with blood. Up the anterior and lateral portions of the neck were several irregularly shap yellowish-red marks, which upon being incised disclosed no extravasatio There was an irregular opening about four inches in diameter with ragge and thinned edges, located in the skin of the chest about four inches below th middle of the right clavicle. About this opening there were several dark reddish patches. The right arm was torn from the shoulder and hung by a few shreds of skin. The left arm was entirely separated from the body about four inches below the shoulder. There were patches of ecchymosis in the substance of the scalp over the posterior portion of the occipital bone and also over the left temporal bone. The vessels of the scalp were congested. The vessels of the dura mater and pia mater were exceedingly congested. The cerebral sinuses were full of dark semi-fluid blood. All the vessels of the brain were engorged with blood. There was no fracture of the base of the skull. The superior maxillary, malar, and nasal bones were fractured and displaced backward and to the left. The lower jaw was fractured. In the connective tissue anterior to the fourth and fifth cervical vertebræ, between the cornua of the hyoid bone, and also posterior to the larynx, were decided clots of blood. The lining membrane of the trachea was of a bright red color and intensely congested. Anterior to the body of the cricoid cartilage, commencing at the lower border of the vocal cords, there was a marked ecchymosis. The spinal column, from the seventh cervical to the first lumbar vertebra, and the walls of the chest were crushed. The thoracic viscera were ground to fragments. Small portions of the lung only could be identified; these portions were of an evenly diffused dark purple color, and excessively congested. The vessels of the mesenteries were full of dark blood. The vena cava ascendens was also distended with blood. All the other organs were examined and found to be in a healthy condition."

In the opinion of the physicians death was caused by asphyxia, resulting from strangulation, produced at some period anterior to the passage of the railway train over the body.

We have commented somewhat at length on this case because of its intrinsic interest in a medico-legal way, and also because of the creditable manner in which the medical examination of the case was conducted. Autopsies are too frequently done in a slipshod and imperfect way, and the generalizations therefrom are often too hasty; so that we are glad to call attention to what we deem in many respects an exceptional case. We think our readers will agree that the conclusion arrived at as to the cause of death is substantiated by the anatomical appearances found, although the elimination of these from the lesions due to the railroad injury was a matter of some delicacy and tact.

LOUISE LATEAU.

THE case of Louise Lateau, the mystic of Bois D'Haine, about whom from time to time remarkable accounts have been given, has been the subject of investigation by a commission, who reported to the Royal Academy of Belgium through M. Warlomont. The report as given in the *London Medical Record* of March 3, 1875, states that Louise Lateau, who was born in Belgium in 1850, passed through much sickness in childhood. Her menses first appeared in 1868, and in the same year the ecstasies and the stigmata, which have so strongly attracted public attention, both by their symptoms and by their periodical return on the Friday of each week, began to display themselves. Moreover, at the time of the investigation the girl was asserted not to have taken any food since March 30, 1871, and she herself stated that she had not had any action of the bowels for three years and a half. She declared that she was constantly in pain all over her body, but that these pains were specially concentrated in the regions where the stigmata appeared, the backs and palms of the feet and hands, the left side, and the right shoulder; and that they became particularly intense on Fridays. The epigastric and dorsal pains peculiar to hysterical subjects were entirely absent. She said that since she had ceased to eat and drink, she no longer passed urine. Every Friday special scenes took place, which were in preparation on Thursday. On that day Louise was going about but suffering from headache, hot and dry skin, full and quick pulse; in a word, all the signs of violent *molimen hæmorrhagicum* were present to a large extent. On Fridays, blood flowed from different parts of her body. M. Warlomont observed on his first visit that the upper part of the forehead was covered with dried blood, which, it appeared, had flowed from midnight until six o'clock in the morning, but had then stopped. In the backs and palms of both hands were two bleeding wounds, from three quarters of an inch to one inch long. Red blood, like the blood of the capillaries, flowed incessantly drop by drop, and almost continuously, from these four wounds. The wounds of the two feet resembled those of the hands, but were of smaller extent. The bleeding on the left side followed the level of the space separating the fifth from the sixth rib, outside and a little below the centre of the left breast. During the greater part of the day-time of Friday, Louise remains in a state of more or less profound ecstasy. The commission reported that the genuineness of the ecstasies was incontestable. As to the stigmata, the spontaneity of whose production was strongly questioned, the commissioners not being able to arrive at the primary cause, whether mechanical or spontaneous, it was necessary for them to confine themselves to making certain of the manner, whether spontaneous or artificial, by which the hæmorrhages are produced. On the evening before the crisis one of the hands was inclosed in a glass globe so secured that the member could not be tampered with. The next morning the apparatus was perfectly intact, as the commissioners assured themselves by the most careful examination of the outer envelopes and the seals which they had affixed, not one of which bore the slightest trace of having been disturbed. The sloping portion of the receiver was filled with a small pool of liquid blood, the back and palm of the hand were covered with clots of blood firmly adhering to the palms. It therefore appeared that the effusions of blood did really occur spontaneously, and without the intervention of any violent means from without.

In discussing the pathology of the ecstasies the report classes them among the neuroses, and states that a marked characteristic of one of the principal groups of these diseases is the faculty in virtue of which the patient under its influence momentarily quits his physiological condition, to enter into a secondary state, during which his acts, functions, and ideas differ essentially from what they are in the normal state. In fact, life is duplicated. The stigmata are also explained by the influence of the mind on the body, their formation being accounted for as follows: the mental act evolving pain by a determinate cerebral action; congestion created by that pain, urged on by external excitations; consecutive loss of elasticity in the capillaries of the congested parts; stasis of the blood in the capillaries; dilatation of these vessels; angioma. M. Warlomont refers the cause of these phenomena to a disturbance of the principal vaso-motor centre, situated in a space comprised within the limits of one millimetre behind the quadrigeminal tubercles and from four to five millimetres in front of the lower extremity of the calamus.

Regarding the abstinence from food, it is stated that it is contrary to the laws of physiology, and consequently there is no need to prove that it is a fabrication.

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SUCCUSSION IN A CASE OF OVARIAN CYST.

At a recent meeting of the Academy of Medicine, M. Laboulbène reported a case such as he had never before observed. It was that of an ovarian cyst which presented the phenomenon of succussion. The tumor, showing all the signs of a cyst of the ovary, probably unilocular, had attained the size of an adult head, and was following the ordinary course of such tumors, when it suddenly developed inflammatory symptoms, namely, heat, redness, and thinning of the skin, so as to seem about to discharge itself spontaneously. It was then that M. Laboulbène discovered in the tumor the phenomenon of succussion. After having satisfied himself that any fluid which was present in the cyst did not proceed from the intestinal canal or the bladder, and that therefore there did not exist any communication of the cyst with the neighboring hollow viscera, he asked what could be the cause of the formation of gas in a completely closed cavity. M. Depaul remarked that in a case of this sort, although the fluid contents of the cyst were not discharged by the rectum or the urethra, there was no reason why the morbid sac should not give access to gases by a crevice or fissure so situated as to permit the gases to enter, but to oppose their escape. In support of his statement he cited a case of extra-uterine abdominal pregnancy in which, while the enveloping sac did not permit any portion of the fluid which it contained to escape, before the operation, by the natural outlets of the body, yet at the examination which was made after gastrotomy, a fissure was discovered at the dependent part of the sac which could give entrance to gases.

But is it necessary, asks *L'Union Médicale*, for the explanation of the development of putridity and the formation of gas in the ovarian cyst reported by M. Laboulbène, to consider essential a communication between the cyst and the neighboring hollow viscera? Inflammation of ovarian cyst without exterior communication is by no means an extraordinary occurrence, nor a very rare one; and one can conceive of a purulent cyst situated in the neighborhood of the intestine easily undergoing putrefaction, as happens so often to purulent collections which form in that region, and as is occasionally observed in subcutaneous collections of a similar nature, which form in the limbs.

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MEDICAL NOTES.

— The coming week will begin with our second Hospital Sunday. It is to be regretted that our suggestion of a year ago to place the money for distribution in the hands of a committee of the Suffolk District Branch of the Massachusetts Medical Society has not yet been accepted. This step would put the movement on a much surer footing, and probably make this excellent charity a certain success.

— A case is reported in the *Medical Times and Gazette*, by Dr. Joseph Coats, of Glasgow, which is of interest in relation to the localization of the function of language. At the Glasgow Royal Infirmary in October last was a boy in whom after death there was discovered one lesion, among others, specially related to the inferior left frontal convolution at its posterior extremity. This was a pretty large collection of pus, measuring three inches and a quarter in diameter and occupying the membranes of the base just at the fissure of Sylvius. The abscess did not appear to involve the brain substance directly, but, situated at the anterior extremity of the left fissure of Sylvius, it partially opened up the fissure, crowding the convolutions of the frontal lobe forward, and those of the temporal lobe to a less extent backward. There was in addition considerable acute meningitis, and a small abscess in the substance of the brain in the right temporal lobe. The primary affection was caries of the right temporal bone. During life the boy complained of great pain in the head, and seemed in a stupid state; could hardly tell his name, and was disinclined to answer questions; but for three days before his death he was exceedingly restless, roaring, shouting, screaming, and using the most filthy and obscene language. These latter symptoms are suggestive of an acute irritation of the organ of language, the boy indulging in that style of speech to which he had once been accustomed; and the lesion described is just such as would produce a surface irritation of Broca's convolution, and of that part of it which is supposed to be specially the seat of the organ of speech — namely, the posterior portion of the inferior fronta convolution.

— A subject which has called forth general, and it seems to us well-merited condemnation from the profession in England, is that of the inquest on the late Sir Charles Lyell. For several months Sir Charles had been suffering from vertigo and other symptoms characteristic of cerebral degeneration, and had been under the care of his medical attendant since the autumn. On the 9th of last December he stumbled and fell down several stairs, incurring a bruise on the forehead and some injury to his thumb in consequence. To all appearance he seemed in about a fortnight to have entirely recovered. After Christmas he became worse, vertigo increased, the brain got duller, he became semi-conscious, and died the last of February, some twelve weeks after the accident. Notwithstanding the fact that his long sickness and the characteristic symptoms seemed to make plain enough the cause of Sir Charles's death, and in spite of the statement from his physician, a very competent practitioner, that an inquest was unnecessary if not unjustifiable, the coroner, Dr. Hardwicke, insisted upon holding the inquest, although the body had been inclosed in a lead and oak coffin. So much indignation was aroused by the procedure of Dr. Hardwicke that the subject was brought before the House of Commons and the Home Secretary was called upon to give what information he possessed regarding the case. It seems to be the general opinion that the coroner was legally right in holding the inquest, on the ground that death occurred within a year and a day of the injury; but although technically in the right, his procedure was regarded as unnecessary and ill-advised.

— Dr. Melvin Rhorer reports to the *American Practitioner* for March, 1875, a case of worms in the urinary bladder. Dr. Rhorer was called to a farmer sixty-four years of age, supposed to have stone in the bladder. For twelve months the patient had been affected with occasional interruptions to the flow of urine, which for the last three weeks had increased in severity, causing great pain in evacuating the bladder. For forty-eight hours but little urine had been passed. On the introduction of a catheter and evacuating the bladder, there were found in the vessel forty or fifty small red worms about half an inch in length, having a number of legs arranged in two distinct rows from one extremity to the other, and their bodies being encircled with numberless small cartilaginous rings. Two hours later the patient voided with his urine about half a dozen more worms, and for the next ten days from four to six worms daily, since which time the discharge of worms has ceased.

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LETTER FROM ROME.

Messrs. Editors, — The abstract truth of the saying that "when in Rome one must do as the Romans do" has often nimbly commended itself to the world, but by an odd contradiction nowhere has it so little practical value as in the city of its presumed birth. Hardly has the stranger entered it before he perceives that, so far as he is concerned, the Roman style of life must be qualified in many particulars; that he cannot, in fact, do as the Romans do without the loss of his usual vitality, or even the risk of jeopardizing his very existence. Rome still dwells apart from the rest of the world, in that seclusion which has ever been hers. The past ages of her eventful history have bequeathed a thousand peculiarities which have gradually become as many necessities. The natural outgrowth of these is a mode of life belonging only to her people, the result of a slow and instinctive adaptation of themselves to their unique surroundings. Their present customs are those of many generations past, and they still cling to that antiquity with which they have been so richly endowed that latent pride, no less than habit, renders them loath t abandon it. The evidence of this is forcibly presented to every observer, and the more so from their poverty, which is so often the peculiar inheritance of those who dwell chiefly in the past. And now such is their condition that not even the pressure of self-interest will induce them to provide an abundant or wholesome table for themselves or others. Their houses are cold and damp, and so are their churches and palaces, which seem the natural offspring of age and ruin, and already far on their way to join their predecessors, whose remains trew the earth around them. Their floors are of stone, and the small means which at first prevented the use of carpets have now constrained them to assert their unhealthiness.

Ages of unmitigated cold during the winter months have enabled the Romans o bear it with impunity, and yawning doors and ill-fitting windows cause little ense of discomfort or imperfection. Narrow streets with walls towering to he clouds shut out the sun and condense the wandering air into impetuous gales, but the thinly-clad citizens issue from their fireless rooms and feel nowise nnoyed. Bareheaded and with no outside garments, they will endure the everest temperature for hours, They never shiver, although their fingers and noses may be blue; only the shrewd beggar does this, and he professionally. Dirt strikes them with no aversion. It is consanguineous, and few would appreciate the pith of its definition as "merely a thing in the wrong place." In it they serenely vegetate, while lively odors play around them, with a gay philosophy born of the "*habitude de malheur*," and are proof against all irrita-ion, mental or corporeal. Refuse out of sight is out of mind, and over-fastid-ous souls alone ever trouble themselves about the sweltering garbage which in many localities fills the broken drains and spoils the air. Let none, however, magine that the prevalence of these little incongruities, as we must regard hem from the heights of our superior civilization, is due to sanitary indifference. The health of the Romans, and that of their Italian brethren in general, is, to say the truth, inestimably dear to them, and no people are more seriously alarmed at the slightest hint of approaching illness. Had these flaws n their social system ever been the obvious source of any personal detriment, he Romans would have taken infinite pains to discover and apply a remedy; but what argument against them would be available when it is seen that the healthiest quarters of the city are the poorest and the most densely-peopled, where time has solidified masses of squalor and filth into strata of unknown epth? Into these even the cholera never penetrates, and there fever seldom r never rages. The fact appears to be that the Romans have become hardned in the lapse of time to many things which we consider not only unpleasnt but dangerous, and have contrived to flourish in spite of them. This is orne out by the statistics, which show that the impressions of the world in eneral are erroneous, and that Rome is by no means so unhealthy as has been magined. The annual death-rate of 34 per 1000 is less than that of Florence, Genoa, Venice, Milan, or Naples.

But innocent as are these phases of Roman life to the children of the soil, will not do for the stranger to presume upon their harmlessness to himself. To their effects the Roman alone can afford to be indifferent. His visitors must not attempt to dwell in the Ghetto, or any other foul and ill-conditioned district; nor must they experiment on scanty and unsubstantial food; they must not face the wind and the cold in thin garments; they must not frequent houses which are pervaded by reeking odors that take every form of nasal aggravation. Prudence in these respects is both possible and necessary, and the customary results will follow from a generous diet, warm clothing, and pure air; for all these *are* attainable to those who exact them in spite of the native idiosyncrasies.

It often happens that travelers throw prudence to the winds, and under the momentary excitement are guilty of indiscretions which at home even the most reckless would scarcely commit. Though these are comparatively seldom followed by the results which might well be expected, yet punishment is frequent enough to lead to serious suffering, which is oftener future than immediate. Unfortunately, in Rome one is much more exposed to dangerous temptations than elsewhere, and in no city do foreigners show so little power of resistance. Its manifold attractions are the more alluring from the variety of their contrasts; and these have the unusual merit of fascinating even the devotees of society, whose very weakness increases their dangers by diminishing their self-control. The more sensuous and impressible the temperament the greater the risk. To many there is a piquant delight in passing, on a bright night, from the ball-room to the Coliseum, to dance in a certain grim revelry over the bones of the Martyrs; in leaving the closing hours and hot mirth of a dinner party for an excursion to the chilly vault of the Pantheon, that they may see the full moon through the blue nucleus of its dome; in stepping from the sunny hilarity of the street into the darkness and dampness of a church or catacomb; in exchanging the sunset view from the tower of the Capitol for some deep excavation where they are bringing to the surface the decay of ages, and slowly spreading out its malaria for absorption. Illustrations like these might be multiplied by the score if there were time and space for the purpose. These will, however, suffice to prove that the ill-repute from which Rome is now suffering has many other sources than its climate. Every one will surely admit that a similar want of care and judgment elsewhere would be quite as pernicious as it sometimes is in these cases. In Rome the effects are in many instances more deplorable than they would otherwise be, from the fact that one is often tempted to exertions more exhausting than he suspects at the time, under the influence of an exciting atmosphere, the objects of interest around him, and the seductions of cheerful and inspiring company. In this way the tone of the system is unwittingly lowered, and diseases find easy entrance which would otherwise be shaken off; but there not unfrequently comes a depressing fear, especially to those who are naturally timid, who recall with a morbid avidity the unscrupulous inventions of the hotel-keepers in the rival cities of Florence, Nice, Munich, Naples, and other places. These thrifty purveyors for the foreign element have learned by long experience to fill their purses in a way that does more credit to the credulity of their patrons than to their own honesty. In this way sad effects have been produced on confiding tourists, for fear often drives home the fatal dart which death only shakes with fitful hesitation.

While on this subject it may be as well to remark that the exertions of which ak women, invalid men, and dilapidated people in general are capable, when their travels, are astounding, and would hardly be believed by the performers mselves if they had not actually made them. At Rome, as might naturally inferred from the endless enticements on every hand, these gymnastics culıate. Ladies who at home can hardly walk an hour without fatigue; d men who toddle round their gardens of a warm morning with a cane; thers reduced by family cares to domestic incompetency and peevishness; hers worn out by hard work, professional or other, till ordered abroad for t by the family physician; sensitive spinsters, prone to adorn the fireside l make great capital of little ailments: all these and more go whirlround in a wild dance of excitement, oblivious of health, comfort, prudence, anything else, in truth, but the fascinations of the moment. In their own ıntries doubts would be expressed as to their sanity; in Rome they merely low the example of every one else. Of course, in numerous cases the results alarming; yet to those who from a long sojourn in foreign countries have uired the calmness to look on unmoved, they appear far less disastrous than ght have been supposed. Still there are instances where the victims take to ir beds and die, *pour encourager les autres*, doubtless availing themselves of little breath left in them to charge it all to the deadly climate of Rome.

But despite this dark cloud of prognostics, let no one conjure up a visionary ad of the unbounded charms of that great city towards which we all wander en in our dreams. Of all these imprudences, dissipations, and weaknesses the ects are small indeed, as any one will admit who places a just estimate upon ir strength for evil. Few superficial observers would believe how slight is the mber of Americans — and these are, I regret to say, by far the most reckless d foolhardy of all the visitors to Rome — who have died here, and how much re scanty still the roll of those who have fallen victims to the much dreaded ers. The sum total of deaths of travelers from the United States within last six years amounts to but thirty-five. In the season of the Council, tending from the 1st of October, 1869, to the 1st of June, 1870, when there ıst have been at least fourteen thousand Americans in Rome — more than ring any one season before or since — and when the deleterious influences re in every way multiplied, only nine died here. Of these, six were from er, and all typhoid. In no season, before or since, have the deaths been so merous, though few would consider this a high rate of mortality when everying is taken into account. During the past five months, which have been usually aggravating and disagreeable from the quantities of snow and rain d the long-continued cold, beginning with the first of October, but four mericans have deceased in Rome, one from fever, and from heart-disease, conmption, and malignant carbuncle one each. In the six years just past the aths from fever have amounted to fifteen, and these were all but one typhoid, hich is that called by most persons Roman fever. The great majority of ese fevers were caused by excessive fatigue, arising from over-exertion in ght-seeing or from devotion to the pleasures of society. At least three fourths the sufferers had returned shortly before their illness from Naples, and probay brought from that city the seeds of their disease, of which they had too ng neglected the first symptoms.

The fact that ardent sight-seers often make an effort to support the unusual strain upon the system by the use of stimulants is also a predisposing cause of typhoid fever. There is the greater enticement to this by reason of insufficient nourishment, especially to those who at home are accustomed to a generous and nutritious diet.

The more immediate origin of typhoid fever is commonly bad drainage in particular hotels, or houses, acting on systems reduced, by whatever cause, below their normal tone, and thus less able to resist its influence. This is an evil by no means peculiar to Rome, as has lately been most sadly illustrated at Oxford and other fever-stricken localities in England.

The majority of travelers in Italy know little or nothing concerning the characteristic diseases of the country, and especially those of Rome, though on this subject, as on every other of popular interest, there is much exaggeration and delusion. The Roman fever *par excellence* arises from the decomposition of vegetable matter, that from animal decay being quite different in its symptoms and effects. It invariably takes the shape of chills and fever, and strongly resembles our ordinary fever and ague. At times it assumes an aggravated type, is very dangerous, and then is called "*perniciosa*." This is fatal in about one third of the cases. It bears a striking similarity to the congestive chills and fever of some of our Western States. Of this there has been, during the past six years, but one death of an American in Rome. The circumstances showed mortal folly, as the patient, when not twenty-four hours out of his bed from an attack of chills and fever, ate a watermelon and then took a bath in the Tiber in the hot sun of August. Typhoid fever, all reports to the contrary notwithstanding, is in the far greater number of instances considerably lighter than under similar conditions in other countries. In addition to typhoid may be mentioned gastric fever, which is by no means common; it frequently passes slowly into typhoid. Rheumatic and neuralgic fevers are less rare than gastric, though seldom dangerous.

That the Roman climate is entitled to be termed perfect is not for a moment to be asserted, but it has a claim to protection from the innumerable slanders which interested parties have heaped upon it. Ordinary, perhaps extraordinary, care is necessary on the part of every visitor. To many the air is relaxing, and the body loses its tone, as it were. Rheumatism and neuralgia are apt to present themselves on a slight pretext, and are loath to depart. Colds and other slight complaints are acquired with facility, and are not so soon got rid of. It is quite possible, before one knows it, to nurse them into something serious. Of seven thousand two hundred and forty-two deaths the past year, seven hundred and forty-five were due to diseases of the throat and lungs.

These observations might easily be enlarged into a sizable volume, but they have already reached more than the limits originally intended. They will serve their purpose if they call attention to a subject which has of late become interesting to many. They may convince some of our readers that Rome has been in some respects more sinned against than sinning. Perchance a few of those who have enjoyed its attractions may even be led to ask themselves if they have been wholly void of blame in the matter.

ROME, *March* 8, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

IE following is a bulletin of the diseases prevalent in Massachusetts during
week ending May 1, 1875, compiled under the authority of the State
d of Health from the returns of physicians representing all sections of
State: —

onchitis, rheumatism, pneumonia, and influenza prevail in all parts of the
.

Berkshire, whooping-cough has a local prevalence.

the Connecticut Valley, diphtheria is more common than it has been dur-
he last six weeks; it is especially prevalent in Greenfield and its vicinity.
tinal disorders continue in Springfield. Wilbraham reports small-pox,
Shelburne cerebro-spinal meningitis.

Worcester County, measles is increasing. Millbury has had cases of
peral fever.

the Northeastern counties, measles shows an increased prevalence, and
rman measles" is reported from several towns. Natick reports that of sixty
lars in one school, forty-one have measles.

the Metropolitan section, no noteworthy change has been reported. There
een a general subsidence of acute diseases.

the Southeastern counties, measles and scarlatina have increased; "Ger-
measles" is reported.

he increased sickness reported in all parts of the State last week has not
inued, and the present week's returns show a marked decline in the amount
gravity of the prevalent diseases.

F. W. DRAPER, M. D., Registrar.

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OMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING APRIL 24, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
York	1,040,000	580	30
adelphia	775,000	337	23
ton	350,000	159	22
ridence	100,000	30	16
cester	50,000	20	21
ell	50,000	17	18
bridge	44,000	24	28
River	34,200	13	19
rence	33,000	8	13
ngfield	33,000	8	13
n	28,000	12	22
m	26,000	8	16

Books and Pamphlets Received. — Manual of Comparative Anatomy and Physiology. By S. Messenger Bradley, F. R. C. S. Third Edition. Philadelphia: Lindsay and Blakiston. 1875. (From James Campbell.)

Medical Vocabulary. By R. C. Mayne, M. D., LL. D., and J. Mayne, M. D., L. R. C. S. Fourth Edition. Philadelphia: Lindsay and Blakiston. 1875. (From James Campbell.)

Boston University Year Book. Edited by the University Council. Vol. II. Boston: Riverside Press. 1875.

Report on Monomania. Report on Dipsomania and Drunkenness. Report on General Paralysis. Papers read by D. A. Morse, M. D., before the Ohio State Medical Society in 1873 and 1874.

The Present Status of Electricity in Medicine. By William F. Hutchinson, A. M., M. D. Providence. 1875.

The International Scientific Series. The Chemistry of Light and Photography. By Dr. Hermann Vogel. New York: D. Appleton & Co. 1875. (For sale by A. Williams & Co.)

The International Scientific Series. Fungi: their Nature and Uses. By M. C. Cooke, M. A., LL. D. Edited by the Rev. M. J. Berkeley. New York: D. Appleton & Co. 1875. (For sale by A. Williams & Co.)

An Open Letter to the Members of the Massachusetts Medical Society. By E. E. Denniston, M. D. Boston: A. Williams & Co. 1875.

A Course of Lectures on Physiology, as delivered by Professor Küss at the Medical School of the University of Strasbourg. Edited by Mathias Duval, M. D. Translated from the second and revised edition by Robert Amory, M. D., formerly Professor of Physiology at the Medical School of Maine. Boston: James Campbell. 1875. (For sale by Noyes, Holmes, & Co.)

The Diseases of the Eye. By Henry W. Williams, A. M., M. D. Fourth Edition, revised and enlarged. Boston: H. O. Houghton & Co. 1875.

A Manual of Diet. By Thomas King Chambers. Philadelphia: Henry C. Lea. 1875.

Cancroid or Epithelioma of the Lower Lip. Modified Operation for its Removal. By J. Middleton Michel, M. D. Charleston, S. C.

Clinical Studies with Large Non-Emetic Doses of Ipecacuanha. By Alfred A. Woodhull, M. D. Atlanta, Ga.

Valedictory Address to the Medical Graduates of the University of Louisville. By David W. Yandell, M. D. 1875.

Report of the Town Officers of the Town of Webster for the Year 1874–75.

Eating for Strength. By M. L. Holbrook, M. D. New York: Wood and Holbrook. 1875.

The Model Physician and Model Patient. By Henry D. Didama, M. D. Syracuse, N. Y. 1875.

Transactions of the Medical Society of the District of Columbia. April, 1875.

Rupture of the Perineum, with a Description of a New Operation. By D. Warren Brickell, M. D. (Extracted from American Journal of the Medical Sciences.)

Military Appointment. — Dr. Thomas Kittredge, of Danvers, appointed Assistant Surgeon of the Second Battalion of Artillery, M. V. M., to fill an original vacancy, passed a successful examination before the Board of Medical Officers, M. V. M., April 30, 1875.

Edward J. Forster,
Surgeon Fifth Regiment of Infantry, M. V. M., Recorder of Board.

Resigned and Discharged. — Ira B. Cushing, Assistant Surgeon of the Third (3d) Regiment of Infantry, M. V. M., April 27th.

Erratum. — The name of Dr. E. J. Forster was erroneously printed in the last number as Librarian of the Middlesex South District Medical Society.

THE BOSTON
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A REMARKABLE COMPLICATION OF SO-CALLED CATARRHAL PNEUMONIA.[1]

BY F. I. KNIGHT, M. D.,
Instructor in Harvard University.

THE case, of which the report follows, was of interest in several particulars. (1.) It was a case of catarrhal pneumonia following whooping-cough. (2.) It was accompanied by an amount of ulceration and loss of substance in the soft palate and pharynx such as I have never seen, or found reported as occurring in this disease. (3.) The pulmonary disease has been arrested. (4.) The extent of the adhesions following the ulceration was very great. (5.) The patient with perfect ease swallowed liquids and solids through an opening at the base of the tongue only a quarter of an inch in its long diameter.

P. F., fourteen years old, applied at the clinic for laryngoscopy at the Massachusetts General Hospital in 1873, on account of sore throat. A careful inquiry into the history of his case elicited the information that in the winter of 1870–71, he had had whooping-cough; he whooped two months, but had had cough ever since. During the winter of 1872–73 he had ear-ache for two or three months, followed by sore throat. He had lost thirteen pounds in weight, had night sweats, and at times pain under the right clavicle. He had never had hæmoptysis. He at this time had great pain on swallowing. The temperature and the pulse were not noted. An examination of the chest did not show anything abnormal on percussion, but on auscultation abundant moist bronchial râles were heard over the right upper lobe, most marked under the clavicle; other regions of the chest were normal. On examination of the throat, deep ulceration was seen in the pharynx; the uvula was gone, and there was extensive ulceration of the soft palate. The edge of the epiglottis was thickened and ulcerated; the interior of the larynx was normal. This was an appearance such as I had seen only in syphilis; the most minute investigation of the patient failed, however, to discover any other evidence of this disease in him, hereditary or acquired. His mother is dead, the cause of her death unknown. He has not seen his father for many years. The only other child in the family died in infancy. From the history of the case and the physical signs, he was considered to have catarrhal pneumonia of the upper lobe of the right lung, and the ulceration was believed to be of that kind which in the larynx often accompanies disease of the lung, and which has been called "tubercular." He was put upon cod-liver oil and whisky and the ulcerations were touched with solid nitrate of silver three times a week. He has led an easy life with his grandfather ever since, and has improved steadily. He had very little trouble in swallowing after the first two months. The caustic applications were continued about six months; as the ulcerated surfaces were then looking very much better and there was no soreness on swallowing, the nitrate was discontinued, and the oil mixture alone used.

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[1] Reported to the Boston Society for Medical Observation, April, 1874.

During the spring of 1874, feeling well, he absented himself from the clinic for six weeks, and when he returned the throat presented the following appearances: the ulceration had nearly healed, but with cicatrization and adhesion to a remarkable degree, the soft palate and pharynx being so closely adherent that there was an opening of only the size of a pin-head, through which air could hardly pass; the base of the tongue was united to the lateral and posterior walls of the pharynx by a mass of cicatricial tissue in which was an opening about a quarter of an inch in its longest diameter, through which he breathed and swallowed. He said that he had no difficulty in swallowing. He looked remarkably well. Pulse 78, strong; respirations, 22–24. He had very little cough, but there was dyspnœa on exertion. He had regained the thirteen pounds which he had lost the year before, and had gained two pounds additional. The voice was clear, but nasal. The sense of smell was very much impaired; taste was normal. On careful examination of the right upper front of the chest during cough, a few moist râles could be heard here and there, but the number had very much diminished. The other regions of the chest were found to be normal.

Remarks. 1. The first point to which I will call attention is that the attack of catarrhal pneumonia followed whooping-cough. This is a frequent occurrence and one which should be more carefully watched for and guarded against. The usual manner of its development is from atelectasis of some of the lobules of the lung. The occurrence of atelectasis in whooping-cough has long been recognized, but the development of catarrhal pneumonia from atelectasis has been only recently carefully studied and minutely described by Bartels and Ziemssen. These facts should lead us to be much more careful than is customary in the treatment of whooping-cough, especially in children, and the ordinary method of abandoning them to their fate, as if nothing could be done for them, is reprehensible. The chief thing to be avoided as far as possible is the catarrhal complication, the extension of which into the small bronchi is liable to plug them, and cause atelectasis. Oppolzer believed that cases could usually be terminated in a few weeks by confining them in a room of uniform temperature. It is very important also to moderate the paroxysms of cough in any way possible; if the child is not too young, by the administration of opiates even, as the cough itself, as in ordinary bronchial catarrh, acts as an irritant to the mucous membrane.

2. The amount of ulceration and the loss of substance of the soft palate are such as one is inclined to refer at once to syphilis. But there is no evidence of this disease. Mr. Hutchinson had a case of a young girl of eleven in which there was ulceration, with loss of the uvula and a perforation of the soft palate; but there was no recorded pulmonary disease. He said of the case that if it was hereditary syphilis, it was one of a new class, as the peculiar appearance of the teeth was wanting.[1] The relation of ulceration in the throat to pulmonary disease is not by any means clear.

Niemeyer, while hesitating to admit any ulcers as tubercular, in which the disease, instead of springing from isolated nodules, develops from diffuse degeneration of mucous membrane, says that this kind of laryngeal ulceration never occurs when the lungs are not the seat of tuberculosis; and he believes it to be beyond doubt that miliary tubercle of the larynx, as well as the diffuse form, takes root upon the same soil as that from which tuberculosis of the lung is developed. The statement that tuberculosis of the lung must precede the laryngeal ulceration would be admitted by very few at the present day, if we employ the term tuberculosis in its more restricted sense; and many modern observers would doubt it, even if tuberculosis were used in its old sense. It has occurred probably to all laryngoscopists to see cases of laryngeal ulceration, which they at once felt must be so-called tubercular, and in which for weeks and months no sign of the pulmonary disease, which indeed always finally appeared, was manifest. Niemeyer truly says that these ulcers are not produced mechanically from the violence of the cough, for the cough in bronchial dilatation is often more severe; nor by the accumulation of acrid secretion at the affected spot, for the secretion of bronchial dilatation and gangrenous vomicæ is more foul, acrid, and corrosive than that from tubercular cavities.

I think that the most we can say in regard to these cases is that there is a tendency to degenerative action both in the lungs and in the larynx; this becomes manifest first sometimes in one organ and sometimes in the other; in the present case this degenerative tendency was manifested exceptionally in the pharynx and soft palate.

3. The pulmonary disease in this case is undoubtedly arrested, as shown by the improvement in general condition, subsidence of cough, and not only the non-extension of the physical signs but also the marked diminution of those which had previously existed. Such re-

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[1] Lancet, January 22, 1870.

sults are of course rare compared with the number of cases of the disease, but they warrant in us a greater hope than we formerly possessed.

4. The result of the healing of the ulceration is worthy of notice. While such an amount of ulceration has not been observed in connection with pulmonary disease, neither has such an amount of cicatrization and adhesion. Cases which bear any resemblance to this have been, as far as I know, invariably syphilitic. Instances of complete adhesion of the soft palate and pharynx are rare, but still they have probably been seen by all familiar with the lesions of syphilis. Those in which the tongue participates to any great extent are much more rare. I have had a case where there was such extensive adhesion between the base of the tongue and the soft palate (with no adhesion to the pharynx) that an opening only large enough to admit the end of my forefinger, which is quite small, remained; this patient, like the one whose case is here presented, had no trouble in deglutition; but there was dyspnœa on exertion.

After one's astonishment at the condition of things has subsided, the question naturally suggests itself, Can anything be done for the relief of the patient? If the adhesions between the tongue and soft palate are cut with the knife or scissors, there is great difficulty in preventing the parts from uniting again, although one must admit that it seems strange that parts so movable should ever unite at all. The syphilitic case, which I have just referred to, with such extensive adhesion of the tongue and soft palate, being from a distance, was sent into the surgical ward of the hospital for operation. The patient did not stay long enough for any great result; I did not have a chance to see him before he had gone. The following was the surgical record: "April 8, 1873. Adhesions between tongue and soft palate partially cut with curved scissors. April 10th. Again contracting; expresses himself as somewhat relieved. April 12th. Discharged relieved."[1]

Zimmer[2] communicates two new cases of adhesion of the soft palate and pharynx, in one of which the base of the tongue was adherent to the soft palate and pharynx, and contraction had taken place to such an extent as to render tracheotomy necessary. The adhesions had been previously divided with the knife without relief. Dilatation of the small opening between the posterior nares and the pharynx had been followed by inflammation about the opening and a defect in the hard palate. When the posterior nares afterwards became completely closed Professor Thiersch perforated the adherent palate, but the opening soon closed again. After one repetition of the operation with similar results, the patient refused to allow any further operating, and was discharged, wearing the canula in the trachea. His taste was normal, his sense of smell was wanting. In the other case the following operation was performed: A sound was passed through the nose down upon the adherent soft palate, and an incision made upon this through the mouth. The pain and bleeding were slight, and the nose immediately became pervious to air. Up to the sixth day after the operation the condition of the patient was excellent; but on the evening of this day, without any apparent cause, nosebleed set in, and recurred frequently during the night to such an extent that plugging of the anterior nares and of the hole in the palate was necessary. In spite of this and of the application of ice, the bleeding recurred the next day, and the plugs were renewed. Again bleeding recurred four days after, with swelling of the salivary glands, pain in the ears, and a purulent discharge from the left ear. On the next day there was profuse bleeding from the mouth, nose, and the right lachrymal canal; the purulent discharge from the left ear was pretty copious. The fauces were red and swollen. As the bleeding continued to recur, and the patient was growing weaker every day, Professor Thiersch removed a piece of the soft palate an inch square, and treated the wound with the actual cautery. The bleeding stopped at once, and did not recur. In eleven days the discharge from the ear had entirely ceased, but partial deafness remained. The opening between the nares and pharynx had narrowed down to the size of a writing-quill. The senses of smell and taste had not suffered.

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[1] A lady has just come under my care in whom the tongue and pharynx are adherent with the exception of an opening about the size of a goose-quill. This is probably specific.

[2] Inaugural Dissertation, Leipzig, 1868; Schmidt's Jahrbücher, 1869.

In my own case I do not feel inclined to interfere with the palate, and at present I do not care to renew the ulceration in the throat; but if the parts contract still more, and relief is necessary, I propose to divide the adhesions laterally by means of the galvano-caustic knife. By operating in this way we shall be much less likely to have reunion take place. Dr. Elsberg has been entirely successful in operating in this way in three cases of syphilitic membranoid occlusion of the rima glottidis.[1]

5. The ease with which the patient swallows through this little opening is indeed very remarkable, any kind of food, liquid or solid, being readily disposed of.

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OSTEOCHONDROMA OF THE SUPERIOR MAXILLA.

BY W. H. WORKMAN, M. D., OF WORCESTER.

In the Boston Medical and Surgical Journal of January 7, 1875, we notice the report of a case of enchondroma of the superior maxilla, by Dr. C. B. Porter, in which the rarity of the affection is alluded to.

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[1] American Journal of Syphilography and Dermatology, January 7, 1874.

The following case of somewhat similar nature, and occurring at nearly the same time, is offered as possibly affording some points of interest.

The patient, Margaret B., aged twenty-five, nearly four years ago received a blow on the right upper central incisor, driving the edge inward, out of line with the other teeth, and causing a slight protuberance on the front of the gum. The displaced tooth was not loosened, and gave her no trouble till about two years afterwards, when it began to pain her, and the gum swelled, a hard nodule appearing behind the tooth, upon the alveolar process. Pain and tenderness in and around the tooth continued for upwards of two months, when in November, 1873, she entered the Worcester City Hospital, where the tooth was extracted, bringing away with it pieces of carious bone. The tooth-cavity was lined with what appeared to be carious bone, and the alveolar process behind was considerably thickened. The patient was etherized, the lateral incisor drawn, and the diseased part removed with a gouge. She recovered shortly, and wore two teeth upon a plate without inconvenience until September, 1874, when she noticed a swelling of about the size of half a pea on the alveolar process just behind the sockets of the two missing teeth. This swelling gradually increased in size, but caused no inconvenience, other than interfering with the plate of the artificial teeth, until January, 1875, when she says she took cold. This was followed by considerable pain referred to the region of the right nostril and antrum, and by rapid growth of the tumor both on the outer and on the inner side of the alveolar process.

In February, 1875, the patient again presented herself at the City Hospital, with the following appearances. On the anterior surface of the alveolar process, and to the right of the median line, was a hard protuberance about half an inch long and one quarter wide, over which the mucous membrane was of a lighter color than normal, and was apparently thinned. Inside the alveolar border and beneath the pale mucous membrane was a growth of bony hardness. This projected nearly to the level of the edge of the teeth, and extended along the alveolar border to the first molar, thence nearly transversely to the median line, then forward and to the left, until it ended in a nodule the size of a pea behind the left incisors.

On March 13th she was etherized and the growth was removed by Dr. O. Martin as follows. A perpendicular incision from the right nostril divided the lip, which was turned back and held by an assistant. The first molar of the right side was extracted, and through its socket the alveolar and palatal processes of the maxilla were divided transversely as far as the median line with the saw, which was also used to cut through the walls of the antrum just above its floor. The division of the maxilla along the median line was effected with the forceps. The portion of bone included by the above-mentioned limits being removed, the alveolar process of the left maxilla was cut away with the forceps as far as the middle of the socket of the canine tooth. The only hæmorrhage of any account was from the posterior palatine artery; this having been secured, the hæmorrhage ceased. At the present date, four weeks after the operation, the patient is doing well and making a good recovery.[1]

Pathology. — Inspection shows the tumor to consist of lobules crowded closely together, varying in size from that of a hemp-seed to that of a cherry; it is white or brownish-white in color, of irregularly ovoidal shape, and attached to the bone by the smaller ends. The whole is strongly though somewhat loosely bound together by bands of connective tissue, which, arising at the surface of the bone, run between the individual lobules and are inserted into the mucous membrane covering the growth. Many of the lobules are entirely enveloped in connective tissue and are quite movable; while others, and the largest, are connected with the maxilla by a spongy osseous substance. The tumor projects downward from the alveolar and palatal processes, and upward from the upper surface of the latter into the antrum.

Under the microscope the lobules are seen to be composed of connective tissue, cartilage, and bone. The first forms a thin outer layer or investing capsule, dense at the surface, but loose and more cellular within. Beneath this appears a broad layer of cartilage, partly hyaline, with numerous small oval, spindle, or stellate cells without capsules, and little intercellular substance; it is partly composed of large oval cells with a distinct capsule and one or more large granular nuclei, imbedded in an intercellular substance either fibrous or smooth in appearance and with a columnar arrangement. The central and lower portions of the lobules are occupied by bone-substance corresponding exactly with that recently formed in a normal manner from temporary cartilage. The mucous membrane covering the growth, although somewhat atrophied, is otherwise normal.

As regards the mode of development of this tumor, if we examine a section of a young lobule made in the axis of the growth, we observe the peripheral connective tissue, which is continuous with the periosteum at each side, to be in a state of formative activity, with the consequent production of multitudes of spindle-cells with large nuclei, which, together with the intercellular substance, no longer preserve a direction parallel to the surface of the bone, but exhibit a tendency to turn themselves so as to lie with their long axis perpendicular to it, converging from all parts of the circumference towards the central line. At this point it is impossible to distinguish the growth from a spindle-cell sarcoma. Just beneath, however, part of the cells enlarge laterally and become oval, while others are merged apparently into the intercellular substance, and here we receive the first intimation of the formation of cartilage. The differentiation into cells and intercellular substance now becomes more marked; the former continue to enlarge and are provided with a capsule, while the latter, at first fibro-cellular, finally become homogeneous, running everywhere between the cells as bands, the widest and thickest of which preserve the perpendicular direction above mentioned. This constitutes the fully developed and typical cartilage of the growth.

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[1] For the above history and account of the operation the writer is indebted to Dr. C. A. Peabody, Resident Physician of the City Hospital.

Turning to a similar section ot an older nodule, the other links in the chain of development may be successively traced. Lime salts are deposited in the homogeneous intercellular substance; some of the included cells become irregular and jagged in outline, while others take on renewed activity and generate round, spindle, or stellate cells, which play their part in filling the newly-formed medullary spaces, and supply the osteoblasts which are seen lining the edges of the new bone. Vessels are abundant in the medullary spaces, pushing up quite to the edge of the advancing ossifying portions, though none are seen in the cartilage, or in the connective tissue in process of transformation. The new bone becomes more mature in structure as it approaches the surface of the maxilla, new lamellæ being added from the medulla, until in those cases in which the nodules are united by bone to the maxilla, no line of demarkation can be observed. The structure is, however, no less perfect in those where the new is separated from the normal bone by bands of connective tissue.

Here then we have a growth of a mixed nature, originating in the periosteum, which, under the influence of a formative irritation, affords a matrix for the production of a cartilage which passes over readily into true cancellous bone. As fast as the cartilage is converted into bone, it receives new accessions from its connective tissue investment, and this more at the top than at the sides, so that the lobules have a much greater length than width. It is interesting to notice that the disease does not spread in all directions, as in the case of carcinoma or sarcoma, by implication of surrounding tissues, but the irritation affects the periosteum at small removes, and the resulting neoplasms grow upward side by side, each separated from its neighbors by apparently normal connective tissue. The difficulty of extirpating such a growth, the youngest nodules of which could scarcely be diagnosticated by the unaided eye, and the probability of its recurrence are evident.

RECENT PROGRESS IN OPHTHALMOLOGY.[1]

BY O. F. WADSWORTH, M. D.

The Fundus Oculi as an Index of the Intra-Cranial or General Circulation. — Manz[2] has for several years examined the fundus oculi in cases of acute inflammation of the brain or its membranes, in the hospitals of Freiburg. Putting aside the cases of neuritis optici, his experience has taught him that hyperæmia of the fundus in such cases is by no means so frequent as is often assumed. So-called increased redness of the fundus is a very doubtful symptom, especially as in most instances both eyes are affected alike. The signs of intra-ocular hyperæmia are: reddening of the papilla, a positive increase in the size of the arteries, and a like change in the veins. Manz has been able to find a decided reddening of the papilla in only a few cases. An increased fullness of the arteries is, in general, seldom to be definitely made out, and has therefore a diagnostic value in only a few cases. Increased fullness and winding of the veins was present in most cases, but this symptom was often very little marked; many times was there doubt whether one or another venous branch could be regarded as abnormal, and when the individual differences in the size and winding of the veins in the normal eye were taken into account, even here caution needed to be exercised in judgment. A venous pulse was as a rule wanting. (In other classes of cases also, as anæmia, chlorosis, and epilepsy, no definite opinion as to the state of the general or cerebral circulation could be made out with the ophthalmoscope.) Besides the increased fullness of the veins, one other appearance was found with tolerable regularity, but by no means without exception. This consisted in a very slight, diffuse opacity of the retina, most marked in the immediate neighborhood of the papilla, and in many cases decidedly veiling its outline. Still, this opacity was so slight that a little different accommodation was sufficient to make it disappear. It seemed as if the opacity were superficial, and accommodation for a deeper level sufficed to bring out the scleral border of the nerve clearly. The opacity might also be present one day and absent the next, or vary in intensity at different examinations on the same day. Manz is inclined to regard the described opacity as due to a distention of the space between the outer and the inner sheath of the opticus, sometimes from retention of the lymph normally present there, sometimes from flowing in of abnormally secreted fluids from the cranial cavity, and the filtration of the fluid through the opticus into the retina.

Schmidt[3] has for a long time busied himself with similar examinations and been surprised at the generally negative results. In general his observations agree with those of Manz, but the slight opacity of the retina he has usually not seen. He has also examined the eyes of one hundred and twenty-seven patients in the department for the insane in the Charité in Berlin, and in only thirteen found changes in the papilla which could with any certainty be considered pathological. Even among these thirteen were some in whom it was doubtful whether the greater vascularity were not within the physiological limit. The distention of the space between the nerve sheaths and serous filtration into the retina which Manz assumed seems to him doubtful.

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[1] Concluded from page 325.

[2] Monatsblatt für Augenheilkunde, 1874, page 447.

[3] Monatsblatt für Augenheilkunde, 1874, page 455.

Horner[1] examined the eyes in some thirty cases of the progressive anæmia first described in detail by Biermer, and found in nearly every case great distention of the veins and large hæmorrhages in the retina, while the papilla was perfectly white. In epilepsy he considers the appearance of the papilla dependent on the duration of the disease, the frequency of the attacks, and the influence which the paroxysm itself exerts. He has examined both directly before and throughout the paroxysm. Never has he seen a narrowing of the vessels just before the paroxysm, but during its height there is great distention of the retinal veins, and it is very natural that, after this has occurred perhaps several times daily for years, permanent dilatation of the vessels, with opacity and reddening of the opticus, should be found. Such changes are secondary, however, and of no importance as to the theoretical explanation of the epilepsy.

Bull[2] reports the results of examination of eleven children affected with caries of the vertebræ, mostly in the dorsal region. He found changes in the fundus oculi in all the cases. In one case there were the appearances of neuritis descendens; in two, the optic papillæ were abnormally pale, with, in the one, diminished size of both arteries and veins, in the other enlarged veins; in all the others the papillæ were hyperæmic and the retinal veins distended. Nothing appears in the history of the cases to explain the difference in the appearances observed.

Arachnitis with Passage of Exudation from the Cranium into the Eye. — Alexander[3] reports the case of a child of three years which appeared perfectly well till the day before he saw it. On that day it complained of headache and vomited twice. The next morning it seemed well, complained of nothing, but the parents observed that it groped after the objects about it. The dimness of vision increased so rapidly that a few hours later, when Alexander saw it, there was no perception of light. The pupils were dilated, without reaction to light; tension not increased; media clear. In both eyes the normal redness of

[1] Monatsblatt für Augenheilkunde, 1874, page 458.

[2] Transactions of the American Ophthalmological Society, 1874.

[3] Monatsblatt für Augenheilkunde, 1874, page 354.

the fundus had everywhere disappeared, and was replaced by a bluish-gray surface, over which the retina lay smoothly; the retinal vessels, both arteries and veins, were somewhat dilated, but were perfectly clear and could be followed to their smallest ramifications; the nerves looked opaque, but their outline could be made out. There were none of the symptoms of neuritis or neuro-retinitis. The general condition of the child was good, there were no further cerebral symptoms, the temperature never rose above 38° C. The child was bright, and, though absolutely blind, took part in the play of its brothers and sisters. In the course of four weeks the exudation behind the retina began to be absorbed and sight to return, and two weeks later the exudation had wholly disappeared, the retina was somewhat atrophied, the opticus pale, while sight was so far recovered that the child could distinguish small objects. Alexander does not doubt that the diagnosis of a cerebral affection, with filtration of inflammatory products from the intra-cranial cavity into the interior of the eyes, is correct.

Cholesterine beneath the Retina. — At the Dublin Pathological Society, Wilson[1] showed an eye removed from a child of two and a half years, in which a collection of fluid filled with cholesterine plates was found between choroid and retina. Attention had been attracted to the eye by a brilliant golden-yellow reflection from behind the pupil, giving rise to the suspicion of glioma or white sarcoma. The ophthalmoscope revealed a tumor pressing from behind forward and encroaching on the opticus and lens, the retinal surface appearing healthy.

Causes of Myopia. — Two views as to the causes of acquired myopia, in many respects opposed, are at present held. According to the one, a congenital predisposition to stretching of the sclera is necessary, and the effect of continued near work and accompanying convergence and accommodative effort act only to bring the predisposition into action. The other regards predisposition as at least unnecessary, and attributes an all-powerful influence in this respect to prolonged near use of the eyes, and a consequent spasm of the ciliary muscle, whereby irritation, congestion, and inflammation of the choroid leads to softening and consequent stretching of the sclera. Based on the latter view, a new treatment for myopia — the maintenance for a period of many weeks of paralysis of the accommodation by atropine — has been employed by some of its advocates, and the results they have obtained by this method in diminishing the apparent refraction of the eyes, as tested by glasses, have been referred to as proof of the great frequency of spasm of the ciliary muscle in myopia, and the value of the treatment.

Schnabel[2] holds that this view is incorrect and not in accordance with facts. He admits that near work tends to increase an already act-

[1] British Medical Journal, February 6, 1875.

[2] Archiv für Ophthalmologie, xx. 2.

ing, or to excite a latent predisposition to, myopia, but not that it is th primary or the principal factor in the change. He argues that myopia very frequent in classes which make very little use of the eyes for ne work; Jaeger stated long ago that myopia from lengthening of t bulbus occurred quite as often among people not in the habit of usi their accommodation continuously, as in others; and Mannhardt fou that, spite of the frequency of myopia in Germany, it was much mo frequent in Italy, although eighty per cent. of the population could neither read nor write. That an inflammatory condition of the choroid may accompany and keep pace with the increase of myopia is well known; but, on the other hand, myopia may progress to a very high degree without anything to excite the attention of the myope except the diminished power of seeing in the distance, while the vision remains normal, the media clear, and no sign of inflammatory condition is to be seen in the fundus; indeed, this is the usual course for the lesser degrees. The fact that myopia usually appears only at an age when the eyes are already used with some persistence is not a valid argument against congenital predisposition, for a period of latency is also observed with other congenital tendencies, and the very frequent hereditariness of myopia must be considered beyond dispute.

But if inflammation cannot be admitted to cause the elongation of the bulb by weakening the resistance of the posterior part of the sclera, neither can it be assumed that increased pressure caused by contraction of the ciliary muscle can produce this effect while the resistance of the sclera remains normal.

Schnabel examined two hundred and ten eyes with reference to the existence of spasm of the accommodation, which is asserted to play so important a rôle in the development of myopia, but in no case could he discover it; and he concludes that, although it may occur in rare instances, it can by no means be the usual precursor of the lengthening of the globe. In eighty-nine eyes the determination of the refraction was made by the ophthalmoscope and afterwards verified by the use of atropine.

Attention is called to the fact that of the cases which were published by Dobrowolski, supposed to show spasm of the accommodation from the diminution of the refraction (as tested by glasses) under the use of atropine, in the vast majority,[1] the amount of diminution was within that which is produced in the normal eye by removal of the tonus of the ciliary muscle by atropine. This reduction of the refraction under atropine, which Donders observed many years ago, and which Schnabel has confirmed, appears to have been forgotten. The observations of Schiers[2] were controlled by determination of the refraction after the

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[1] The same is true of the cases published since Schnabel wrote. — REPORTER.

[2] And of more recent observers, Schröder, Derby, Reporter.

had regained its normal size. The artificial paralysis of the ciliary
e was maintained, however, during several weeks, and it is by no
s unlikely that the youthful lens, after the analogy of other elastic
ınces, should, under continuous tension of the zonula for a long
become flatter, and only slowly resume its previous curvature.
of pathological paralysis of accommodation reported by Jacobson
oint in this direction.

s worthy of remark that none of the observers who report cases
asm of accommodation used the ophthalmoscope to determine the
tion and confirm the diagnosis. Only when the difference be-
ı the refraction shown by the ophthalmoscope and that found
atropine is greater than the reduction of refraction which atro-
produces in the normal eye can spasm of accommodation be prop-
assumed.

e existence of a crescent at the outer edge of the optic nerve is
ly considered as evidence and due to elongation of the globe.
abel describes two forms of crescent: 1. The congenital, which is
ly small, is independent of staphyloma posticum, occurs with
ı the same frequency in eyes of every refraction, and is analogous
loboma of the choroid; on it both epithelial layer and the choroid
er are wanting; 2. The acquired, which is the result of staphyloma
cum, is due to displacement (sliding) of the epithelial layer, and
ching and atrophy of the stroma of the choroid. With both forms
' blind spot " extends over their surface.

e theory which refers the production of the crescent to the ten-
exercised by the ciliary muscle in accommodation he considers un-
ble for several reasons.

this were the mechanism, then in hypermetropia, in which an ex-
ve amount of accommodation is habitually employed, crescents
ld be very frequent, at least as frequent as in myopia; whereas
are only exceptionally found, although the number of non-myopic
with crescents is greater than that of myopic eyes without them;
should also occur more often in emmetropes who are much en-
d at near work; the crescent should commence, at least, at the
side of the nerve, instead of, as it does in fact, at the outer, since
ormer is much nearer the point from which the muscular effort is
ed; finally, the experiments of Hensen and Voelckers have shown
the movement of the choroid caused by contraction of the ciliary
le does not extend so far back even as the macula, and this is sit-
l between the muscle and the outer side of the nerve.

PROCEEDINGS OF THE AMERICAN MEDICAL ASSOCIATIO

TWENTY-SIXTH ANNUAL SESSION: LOUISVILLE, MAY 4-7, 1875.

THE meeting was called to order at 11 A. M. on Tuesday, May 4th. D Toner, the former president, presented his successor, Dr. Bowling, to the association. Dr. E. Richardson, the chairman of the committee of arrangement delivered an eloquent address of welcome, dilating freely, but not disagreeabl on the claims of his State to medical distinction, alluding to the emine writers and practitioners, among whose names are those of Brashear, M Dowell, Briggs, and Dudley, and concluding by a hearty welcome to the o Kentucky home. He announced that the association would meet in conve tion on each day from 9.30 A. M. to 1 P. M., and the different sections sep rately at 3 P. M.

Dr. Davis, of Chicago, announced that Dr. Bottsford, President of th Canadian Medical Association, was present, and moved that he be invited to a seat on the platform. The motion was carried, and, upon complying, Dr. Bottsford addressed the association as follows: —

"GENTLEMEN, — I have been called upon by your president to address you upon this occasion. The fewer words I say will no doubt make it the more acceptable. As you are aware, the country which I have the honor to represent extends along your northern border, touching the Atlantic on the east and the Pacific on the west. I have come to learn the principles which have secured your success — a success manifest from the assemblage which I see before me. We are as yet a few in number, scattered over a large surface, and we are making an effort to advance the interest of our profession. These efforts as yet cannot be said to show great results, but we trust before long to enter the arena and to do battle, not with the arms of conflict, but in the cause of the principles which are the foundation of our profession, and as benefactors of the race; for, without arrogating to ourselves undue prominence, I think I might, without excepting any body of men or profession, claim for medical men an amount of self-denial and sympathy for their fellow-beings not to be surpassed or even equaled."

Some amusement was caused at the close of Dr. Bottsford's remarks by a wish from a Texas delegate that Canada might have the good fortune that befell Texas and be annexed to the United States.

The president then delivered an oration, of which the following is an abstract: —

A national association of medical men was without precedent when this was ushered into existence by the genius of one man, watered by his parental solicitude, and sustained by the coöperation of his brethren, all stimulated by a common hope that good would come of it in cementing the brotherhood in unity of purpose, and intensifying its power for the achievement of good to the profession, and consequently to the public at large. Thus organized, and freighted with the hopes and blessings of every loyal medical heart in the country, it has literally drifted through a generation. Composed of the representatives of wide-spread and independent medical masses, with many-sided es and aspirations, many with a freedom of thought and expression pecul- to their latitudes, it has seemed, in turn, to delight in representing every de of medical politics. But it still lived, and every year its ancient friends t new representatives in council, and, renewing their allegiance, lighted in their torches at its altar. The contributions of old and new were ated, and, in a bound book, sanctified to posterity.

t is good occasionally to recall the grand objects its founders hoped to ieve through its instrumentality. They were —

1. To give emphatic expression to the views and aims of the medical pro- sion in this country.
2. To supply more effectual means than have hitherto been available here cultivating and advancing medical knowledge.
3. To elevate the standard of medical education.
4. To promote the usefulness, honor, and interest of the medical profession.
5. To enlighten and direct public opinion in regard to the duties, responsi- ities, and requirements of medical men.
6. To excite and encourage emulation and concert of action in the profes- n.
7. To facilitate and foster friendly intercourse between medical men.
8. To take cognizance of the common interest of the medical profession in ery part of the United States.

After eulogizing briefly the success the association had met with in the pur- it of the first two objects, the orator enlarged on the third point. The past licy of the association was sketched as follows: —

At Nashville, eighteen years ago, amid a storm of school representatives in is association, a resolution was introduced to so change our constitution as to ep the representatives of schools and hospitals, as such, out of this body. nder the rule, it must wait a year for consideration. It was called up the xt year at Washington, after a great excitement about hospital representa- es, and was lost by an almost unanimous vote. In 1869, at New Orleans, e same proposition was made. A greater storm at the meeting in Washing- n, in 1870, from school representatives, caused deeper thought upon the sub- t, and at Detroit, last year, seventeen years after the Nashville resolution, to e unspeakable joy of many the constitution was so amended as to give a rmanent quietus to this disturbing element, and assurance of a calmer future.

Other changes of less importance have, from time to time, lent their aid ward securing for the society as much of finish and beauty as are compati- e with the imperfection of the human understanding. By the aid of commit- es, all disturbing influences, such as once convulsed the assembly, are quietly sposed of, and a stranger present during hours of business would regard it equal in dignity and decorum to any representative body in the world. ough a little late, perhaps, in arriving at the full proportion and stature of anhood, the induration of its ligaments, fusion, and condensation of parts, with neral unity and individuality, are doubtless the more perfect, and, in conse- ence, give earnest of prolonged youth and an old age that shall know no cay.

If this body has not of itself accomplished all its friends hoped for in the beginning, in elevating the standard of medical education, they must be satisfied to know that that standard, notwithstanding, has been regularly going up, fully abreast with the progress of our new country in every other department of human learning, and all the arts and appliances of a rapidly developing civilization. The spring can only well up the waters sent to it, purifying them in the process, and the sea is but the representative of many waters. The schools must take such material as they can get, and make the most of it; and the American Medical Association, as in the past, so now and hereafter, is obliged to consist of such representative medical men as the schools may prepare and fashion for its use. The stream cannot rise higher than its sources.

That the schools are all that their hopeful, faithful, and earnest teachers can make them, and that they accomplish all that is possible with the material intrusted to them, none ought to doubt; and that the country at large selects as good material as it possesses for the schools is equally indisputable. Nor should any believe that the youth selected for medical schools are, in respect of preparatory education, a whit inferior to those selected for the law or divinity.

The question returns to us, What can the association now do, in its early manhood, honestly, toward redeeming implied pledges in its infancy? Much, if it have nerve or backbone; nothing, if these be absent! The plan is simple, as all plans are that succeed. Let it be solemnly resolved by this meeting that it shall be regarded as derogatory to the character of any physician, in any part of the United States, to take under his care as a student of medicine any one who cannot exhibit evidence of having taken a degree in a regularly chartered college or a certificate of qualifications necessary to become a student of medicine, from a board of examiners appointed for that purpose by the American Medical Association. This will do the work.

Territories and new States, in a country like ours, in a formative state, will provide themselves with medical helps in the mode we have described, which, existing outside of this body, and independent of it, will occasion it no concern whatever. Nor would the schools suffer pecuniary loss under this rule. When it was generally known, as it soon would be, young men desiring to enter the profession would earnestly devote themselves to the duties of preparation, nor relax their efforts till possessed of the degree or the certificate.

Let the doctorate imply something more than “ two full courses of lectures, the last of which must be in this institution.” Besides, it would give the college an ample excuse for not receiving every uneducated, lazy dolt who desired to make a living under false pretenses.

Neither would this rule exclude any one from being a doctor. In a vigorous republic there will always spring up men who, by genius and long self-training, literally hew their way to greatness, in all of the professions, while many more will pass through colleges, winning all their honors, to shrink into insignificance, and to go through the world unknowing and unknown. For the former, Heaven has made ample provision, and stamped them as the nobility of nature, whom this body can neither depress nor elevate; nay, nor could an association of angels.

The speaker, after alluding to the progress of the profession in late years closed with a characteristically fervent tribute to some of the prominent members of the association.

The secretary read a note from the vice-president, Dr. H. W. Brown, of Texas, apologizing for his absence.

The meeting then adjourned.

In the afternoon Dr. Nathan Allen, of Lowell, read a paper before the section of Obstetrics, in which he claimed that the truly normal standard of womanhood was that of the highest anatomical development and of the greatest physiological excellence. The essay elicited considerable criticism.

The ball and banquet at the Galt House in the evening was a perfect success which we regret we have no space to dwell upon. The medical editors were entertained at dinner by Dr. D. W. Yandell.

WEDNESDAY'S PROCEEDINGS.

Wednesday, May 5th, the secretary read the names of newly arrived delegates, which swelled the total to four hundred and thirty-five. The delegates of each State then appointed one of their number to form part of the nominating committee. Extracts were read from the records of the Canadian Medical Association declaring it the unanimous opinion of that body that an international convention of the associations of America and Canada would be beneficial to both.

Dr. Toner, chairman of the committee to whom the matter was referred at the last meeting, presented a report including the following resolutions, which were adopted: —

Resolved, That the association learn with regret that no action was taken by the last Congress upon its recommendation in behalf of the medical department of the United States army, and that we respectfully renew our petition that Congress will enact such a bill for the benefit of the medical department of the army as will secure to its officers that share of rank and promotion to which we consider that they are entitled, and which should be at least fully equal to that enjoyed by any other staff corps, or by the medical corps of the navy.

Resolved, That a committee of five be appointed to call the attention of Congress to this subject, and to the petitions which were forwarded to the last Congress by the physicians of the United States.

Dr. Seguin, of New York, read the following paper: —

TO THE AMERICAN MEDICAL ASSOCIATION:

MR. PRESIDENT AND GENTLEMEN, — You have twice sent delegates to the British Medical Association, and kindred European societies, to invite them to concert a plan of uniformity of methods, instruments, scales, and records for clinical observation.

This proposition has become more opportune since the meeting, in Paris, of the convention for the adoption of uniform weights and measures by all nations, in which convention Professors Henry and Hilgard represent the United States, but in which the special wants of unity of measures of our profession are not requested.

It was advocated by Sir William Jenner, MM. Reynolds, Gibson, Stewart, Squire, Sydney Ringer, Wilson, and Tilbury Fox, in England; on the Co nent, by MM. Morey, Charcot, Lorain, Potain, Lepine, Ollier, all ready open a commission in Paris and a sub-committee in Lyons, in order to com in your plan of uniform observation.

This plan embraces the unity of clinical thermometers and of thermomet scales, charts, etc., a uniform graduation of the sphygmograph, myograph, spi graph, æsthesiometer, manometer, globulimeter, ophthalmoscope, thermosco and other instruments of precision used in diagnoses, a uniform method of me uring and registering the hearing, the velocity of other sensory impressions, t regularity of coördinate movements, as the walk, and a uniform registration all clinical cases according to their kind.

Of this plan the International Medical Congress, meeting at Brussels the 1 September prox., proposes to carry out only one part: the uniform measu ment and record of hearing by all nations. It is therefore important that t American Medical Association be represented this year at Brussels, in ord to represent there the original plan of uniformization of clinical observation i its integrity and entirety.

Therefore, the American Medical Association resolves to nominate se delegates, commissioned to again advocate in Europe the unity of clinical observation, and charges them to report progress in brief, at the next meeting o 1876. One of the delegates, E. SEGUIN.

The resolution was adopted.

Dr. Gross, in accordance with the permission voted on the preceding day, then delivered an address on Blood-Letting, which he termed a lost art. After stating the sway that this practice had held for two thousand years, and dwelling on its popularity and universal application, he spoke of the almost total disuse into which it has fallen, and remarked that it behooves us to inquire whether there is not something wrong in the discontinuance of the practice, and whether we have not fallen into the opposite error. Extremes are always dangerous, and they are especially dangerous in the practice of medicine. It behooves us to be on the watch. If the new way is right, the old was certainly wrong. The lancet is now an obsolete instrument. The office of cupping has departed, and blood-letting is emphatically a lost art.

He then proceeded to consider the causes of the loss, which were four, namely:—

1. The influence or tyranny of fashion.
2. The indiscriminate use of the lancet.
3. The acquirement of a more accurate knowledge of diseases.
4. Knowledge of medicines hitherto unknown.

After discussing these causes in detail, Dr. Gross spoke strongly in favor of bleeding for many diseases, especially for inflammatory ones, the bleeding, however, to be performed early. He predicted that bleeding would again come to be recognized as a therapeutic agent, but that it would not be practiced indiscriminately.

At the conclusion of his remarks he was loudly applauded.

Then followed the address of the president of the section on Materia Medica and Physiology, which was well delivered and received.

The report of the committee on the International Medical Association was ad, and referred to the committee on nominations. The report recomended the establishment of such an association in this country, but at the me time thought it advisable to defer the matter for a time. Sending deletes to the convention to assemble at Brussels was thought the most expeent plan to meet the wants felt by the members of the American Association.

The committee appointed to select a die, with the portrait of Dr. N. S. avis on one side and the name and date of the association on the other, reorted that they had arranged for the manufacture of the same in bronze at e Philadelphia mint. The report was received and the committee instructed order two hundred medals at $1 each ; twelve cents extra for postage.

The address of the president of the section on Practical Medicine, Dr. ustin Flint, of New York, was then announced amid the plaudits of the sembly. He began by saying that he had the honor to submit a rather imerfect report upon medical discoveries for the past year.

The subject-matter of the essay referred to alcoholism, motor centres, new emedial agents, transfusion of blood, and the natural history of crime. The hanges of alcohol in the system and its medicinal uses were dwelt upon at me length. Some held that alcohol passes into the blood and is expelled rough the emunctories unchanged, while others denied this and held that it as appropriated by the animal economy. Well-conducted experiments, hower, went to prove that when alcohol was thus taken into the system, the oportion excreted by the kidneys, lungs, and skin is exceedingly small, the eater part being destroyed in the body. What becomes of it? This reains to be answered by further experimental researches. Six hundred grains absolute alcohol can be disposed of without injury to the bodily functions a healthy adult. It is accordingly employed in the treatment of many nditions of disease, though its use is not based upon any ascertained facts ncerning its elimination.

The physiological investigations during the past year in relation to motor ntres of the brain-convulutions was then touched upon, and likewise with ference to newly-discovered remedial agents, when the lecturer passed on to e consideration of the transfusion of blood.

While there were many experiments performed in the transfusion of the blood one animal into the veins of another of unlike genus, and of the blood of lamb into the veins of a man, himself a physician, in one instance, there were rtain curious results noticed, but nothing positive had been elaborated that ould justify the positive advocacy of any reliable feature or theory of practice. he subject was not without interest or promise, however, and afforded an ample ld for any one whose zeal for the advancement of medical knowledge in that rection was equal to the task of an investigation, and which could hardly il, eventually, to be of signal advantage to the profession.

The closing feature of the paper had reference to the natural history of ime, in which a query was announced concerning the possible connection individual tendencies to the commission of crime with corresponding eased conditions of the organization.

The bulk of the essay embraced the consideration of this last topic.

The paper was referred to the section of Practical Medicine, and will be published in the annual report of the association. By a unanimous vote Dr. Flint was authorized to continue the researches alluded to in his paper.

The convention then adjourned till ten o'clock on Thursday morning.

THURSDAY'S PROCEEDINGS.

The meeting was called to order at ten o'clock by the president, Dr. Bowling. Delegates were appointed to represent the American Association in the International Medical Association to be held in Brussels, in September, 1875, and to confer with a committee from the Canadian Medical Association, which will meet in Halifax, August 5, 1875, on the subject of holding an International Convention by the two associations.

The report of the committee on publication was received.

The treasurer's report stated that it would be necessary to be very guarded as to the amount of matter admitted into the journal of the proceedings, or it would be found impossible to embrace it all in the report without increasing the price of preparing it. Owing to the advance recently made in the rate of postage, the reports would be delivered at six dollars instead of five dollars, the price heretofore charged. Three thousand and twenty-two dollars and forty-one cents is the amount reported in the treasury at this time. This report, as was also the librarian's, was received.

Dr. J. Marion Sims rose from his seat upon the disposal of these reports, and stated that he desired to offer the report of the committee on the McDowell Memorial Fund. He then briefly traced the history of the movement, concluding with the following resolutions:—

Whereas, It is universally acknowledged that the late Ephraim McDowell, of Kentucky, was the originator of ovariotomy; and

Whereas, We believe that proper measures should be instituted to commemorate this great achievement, and do appropriate honor to its author; therefore

Resolved, That this association recommend to each of its members, and to the profession generally, to contribute annually such sums as they may think proper until the amount of ten thousand dollars shall be accumulated, which shall be known as the McDowell Memorial Fund, the interest of which shall be devoted to the payment of prizes for the best essays relating to the diseases of the ovaries.

Resolved, That this fund shall be invested by trustees, to be appointed by the association, and subject to such regulations as it may desire.

Resolved, That this association shall elect a board of three trustees, whose duty it shall be to carry out the object of these resolutions, and whose term of office shall continue five years.

Resolved, That this association will leave to the State of Kentucky the grateful privilege of providing a local memorial to the memory of Dr. McDowell.

At the conclusion of the reading of the report, Dr. Gross rose and said that he felt desirous of saying a few words in favor of this fund, as it had been his privilege and good fortune to first set forth the claims on this continent of Dr. McDowell to the title of "Father of Ovariotomy."

The resolutions were adopted.

Dr. E. M. Moore, of Rochester, New York, read a paper on Transfusion, in hich he favored the direct method of performing the operation. The essay as a learned contribution to the subject.

The judicial committee reported upon various matters of ethics which had een referred to them.

Dr. Byford, of Chicago, read an address on Obstetrics.

The association then adjourned until the next day.

FRIDAY'S PROCEEDINGS.

It was voted to hold the next meeting in Philadelphia, the first Tuesday in une, 1876.

The following officers for the ensuing year were elected: President, Dr. J. Marion Sims, of New York; vice-presidents, Dr. John D. Jackson, of Kenucky, Dr. Samuel Tilly, of New Jersey, Dr. N. Pinckney, U. S. A., Dr. S. D. Seeley, of Alabama; treasurer, Dr. Caspar Wistar, of Pennsylvania; brarian, Dr. William Lee, of the District of Columbia; committee on library, Dr. Johnson Elliott, of the District of Columbia; assistant secretary, Dr. Richrd J. Dunglison, of Pennsylvania.

The chairmen and secretaries of the several sections were duly appointed, nd the following gentlemen were put on the judicial committee in the place of those whose term had expired: Dr. Louis S. Jaynes, Virginia; R. N. Todd, Indiana; Robert Battey, Georgia; James E. Morgan, District of Columbia; Thomas B. Flaylor, New Jersey; Silas N. Benham, Pennsylvania; A. Dunap, Ohio. The rest of the present council continued.

The following were appointed a committee on prize essays: Drs. Samuel D. Gross, F. G. Smith, Alfred Stillé, Ellerslie Wallace, and H. C. Wood, of Pennlvania. The present committee made their report, which was received without reading, owing to its length, and was referred to a committee of experts, nsisting of Drs. Ashurst, Gross, and Agnew.

After appropriate resolutions of thanks had been passed, and the president d made a short farewell address, the association adjourned.

HE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

We have watched with great interest the progress of the meeting, and witht as yet committing ourselves to a final opinion we cannot but express our tisfaction with the general course of events. The leaders have appreciated eir responsibility, knowing that to insure even the existence of the association, it was necessary that this meeting should be a success. It is cheering to e in the list of those who visited Louisville the names of Gross, Atlee, and Wood, of Philadelphia; Wood, Flint, and Sayre, of New York; Toner and Woodward, of Washington; Eve, of Nashville; Jackson, of Danville; Jenks, of Detroit; Battey, of Georgia; Bowditch, Clarke, Morland, and Allen, of Massahusetts. Valuable contributions have been made to science, and the social atractions have been remarkably great. Strangers were received as friends with the Southern hospitality for which Louisville is famous. Banquets, receptions, and excursions occupied every leisure hour.

We are not quite satisfied with the result of the election of the president. It is not that we grudge Dr. Sims the honor that comes to him; he has a well-earned and world-wide reputation, and we have no doubt will do credit to the position; but we think the choice might have fallen upon others whose associations are more strictly American, and who are more generally looked up to as leaders of the profession.

The address of the president, Dr. Bowling, far surpassed our expectation. It was a very creditable production, and was devoted chiefly to the problem medical education, which, though we do not altogether agree with the orator, was treated with vigor and discrimination. The address of Dr. Edgar at the meeting of medical editors was to a great extent to the same purpose. He condemned the formation of new schools merely for the sake of advertising the professors, as we fear but too frequently occurs, and is in favor of restricting the entrance to schools. Dr. Bowling proposes that no student should be received who has not a college degree or who fails to pass a proper examination before a board appointed by the association. Though sympathizing fully with the objects of the plan, we are inclined to consider it premature. The requirements for a degree at a first-class school should be as great as possible, but we must not forget that scattered throughout the country are thousands of families needing medical aid as much as the richest, but able to pay very little. Physicians are required for the wilder districts, and physicians of some sort there will be. It is not in the nature of things that they should, as a rule, be of great attainments, but they may be fairly competent, and it is far better that they should have degrees and claim fellowship with their more fortunate brethren than that they should be quacks and outcasts. Dr. Bowling argues that his plan would not exclude any from being a doctor, but that the determined young men would overcome all obstacles. Many, no doubt, would do so, but we fear the places of not a few would be filled by men alike uneducated and unaccountable. This matter should be handled warily, but, as we have always held, much might be done to increase the value of a medical diploma, and we heartily agree with the orator on most of the questions he discusses.

MORTALITY-REGISTRATION IN BOSTON.

OUR Boston readers must have noticed with regret that the recommendations of the commission on the city charter concerning the registration of vital statistics have not met thus far with the favor which they deserved at the hands of the city council. The commissioners in their report place the office of city registrar where it properly belongs — subordinate to the Board of Health. Every consideration of the public welfare favors the proposed amendment. The registration bureau should be in such relations that the facts gathered from day to day, under its administration, concerning mortality could become of immediate practical use. The Board of Health needs these facts in order to carry on its work efficiently, and it should have them, not a favor but as a right. The sanitary administration would gain greatly by n, while the purposes of the registration-act would not suffer in the least eby.

Ve may learn something of these matters from the experience of other icipalities. Boston is the only large American city in which the registra- of vital statistics has an independent place in municipal affairs; in New k, Brooklyn, Philadelphia, Chicago, and St. Louis, it is a bureau subordi- to the health commission. The practical operation of this plan in these lities has proved entirely satisfactory, and any proposition to divorce the branches of the public service, or to make them coördinate but independ- instead of identical, would be met with opposition from all who would apable of forming an intelligent opinion of the subject. It is recognized hese cities that the mortality statistics obtained by the registrar are indis- sable for effective sanitary work, and that data concerning the fatality from otic diseases are an essential basis for the prosecution of measures to ntain the public health.

he need of a union of such kindred departments of the municipal govern- t has been greatly felt in London ever since the enactment of the English lic-health bill; and the incongruity of their independent relations has given to not a little animated discussion and official friction. A similar condition hings has existed in Boston during the last two years, from causes which need not discuss in detail. The Board of Health has felt itself working at sadvantage because it did not know all it ought to know concerning the tality which it sought to reduce to a lower rate; because, in other words, registration was vested in an independent office out of immediate reach. he result has been that the board has at last felt constrained to gather its rmation in this direction through its own agencies. Under a statute which oses the supervision of the interment of the dead upon local boards of lth, an order has been issued that no burial-permit will be granted until the facts which are required under the registration-act concerning the de- ed person shall have been rendered to the board upon a properly certi- return. This return includes a medical certificate of the cause of death. ractically, therefore, a double system of mortality-registration is in force Boston. The Board of Health is right in obtaining facts of vital impor- e to its efficiency; and the city registrar is right in securing the same s in duplicate, in fulfillment of the duties of his office. Both departments also acting within well-defined legal limits. The one thing, however, h, in our opinion, is wrong about the matter, is that certain gentlemen in city council, actuated by motives which are not obvious unless they be of rsonal nature, do not regard with favor the judgment of those who have ied the whole subject intelligently and impartially. There is still an op- unity to rectify this matter in the best interests of the public welfare; it be hoped that the branch of the city council which will deliberate upon -night will regard the general good as paramount to any personal claims. eanwhile, we trust that our medical readers in Boston will recognize the tion in which the Board of Health is placed as one not of its own seeking; that they will readily assist in promoting the sanitary good of the city by nding the purposes of the board. We believe the need for duplicating death-certificates will be only temporary.

THE NEW ZOÖLOGICAL STATION AT NAPLES.

THIS station, instituted for purposes similar to those for which Agassiz ganized the school at Penikese, is graphically described in several of t European journals. The building itself is not on a scale with the aquaria Vienna and Brighton, but the interest and importance of the aquarium con in the variety and extent of the collection of marine animals, fish, shells, cor mollusca, medusæ, crustacea, worms, sponges, starfish, etc., which people tanks. These tanks contain all the animals which inhabit the depths of th sea. The medusæ and their congeners, as well as some other mollusks, do not thrive very well. There are in this aquarium eight large octopods, one of which cut in two a large lobster with which he was having a fight. The pumps for supplying the tanks are worked for twelve hours a day; for the remaining twelve hours there is no current of fresh water, and the animals seem to thrive well under these conditions. Last summer some observations were made on the electric ray. An English zoölogist, who is preparing a work on the history of sharks, stayed four months at the station, and during that time four hundred sharks' eggs were placed at his disposal. This aquarium has thus become a field where naturalists can pursue their investigations, and where they find facilities for pursuing their studies and experiments in the buildings of the establishment itself. The director of the establishment informed the writer of these details that, since it was opened in February last, twenty-two naturalists had already come thither to work in the laboratories. It contains twenty rooms, which may be hired, and, in fact, are already let to foreign governments or scientific institutions. It is believed that this establishment will exercise a beneficial influence on the development of the biological sciences; it owes its origin to a German naturalist, Dr. Dohrn; and the German booksellers have contributed to it a library worth about £1500. The English naturalists, headed by Mr. Darwin, have also testified their interest in this novel scientific enterprise by a contribution of £1000 to its funds.

Unfortunately, of late, the tanks of the establishment have been invaded by rats, which have made great ravages among their inhabitants; the predatory rodents captured and devoured all the fish which were slumbering at night on the surface of the water. One of the rats was discovered in the clutches of a large octopod, which after having dragged him on to his rock had sucked the blood from his body. Little was left beyond the skin and the skeleton. Another rat, imprisoned in the claws of a huge crab, aroused the janitor by his shrill cries. The entire family of frogs, including many rare species, and the salamanders from Mexico were devoured by the rats.

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MEDICAL NOTES.

— The following officers of the Association of Medical Editors were elected for the ensuing year: President, Dr. Bell, of *The Sanitarian*, of New York; Vice-President, Dr. H. C. Wood, Jr., of the *Philadelphia Medical Times*; Secretary, Dr. F. C. Davis, of the *Chicago Medical Examiner*.

— Dr. C. B. Brigham has been elected visiting surgeon at the French spital, San Francisco.

— Washing out of the stomach, and the aspiration of liquids secreted by it, more and more practiced in Germany, since Kussmaul highly praised this thod. Dr. Schliep uses it in nearly all affections of the stomach, especially chronic gastritis, with or without dilatation. The cure of chronic catarrh, ording to his account in the *Deutsche Klinik*, vol. xiv., would require but imited number of applications. In simple catarrh, five would suffice, on an erage. He uses this method even in the dyspepsia of consumptive patients. dilatation of the stomach, he empties that organ with the pump every day. performs the washing out even in cancer; he uses pure water, or adds bicarnate of soda to the water, if the liquids be very acid; or permanganate of tash, if the liquids show signs of fermentation; carbolic acid, when they tain vegetable parasites; boracic acid, as a disinfectant; and tincture of rrh, in atonic dyspepsia with abundant secretion of mucus.

— The Prince of Bavaria, whose sister married the Crown-Prince Rudolph Austria, has, it is stated, adopted medicine as his profession. By all acnts he will be a very successful practitioner; for he has not only received iploma, but he has within the last few days performed a most difficult operon at the Munich Ophthalmic Hospital.

— It is stated in our foreign exchanges that on the 3d of March the first ne of the anatomical school of the new Faculty of Geneva was laid with at pomp. Heretofore the university has had no faculty of medicine, and this ition is hailed with great enthusiasm by the scientific men of that city. e government and learned societies were largely represented at the cereny; speeches of importance were delivered, the discourse of the President the Department of Public Instruction being peculiarly remarkable. He ted that the new faculty, placed between Germany, France, and Italy, uld serve as a scientific link between these countries. It may properly be led that a faculty of medicine may well be erected in a land where physical natural sciences have been so successfully cultivated by such men as Bone- Saussure, De Candolle, De la Rive, Pictetus, and others; and in a city ere flourished Tronchin, Odier, Prévost, Maunoir, Coindet, Mayor, and iet, all of whom have left a worthy name in the history of medicine and gery.

— We learn from the *Sanitary Record* that since the small-pox epidemic of 1 and 1873, many cases of variola have arisen in Ireland, owing to the valence of the practice of inoculation in the remoter parts of the country, ecially in Galway, Mayo, and Donegal. The clergy and dispensary medi- officers have done their best to teach the ignorant people the value of vaction, but in a few remote places without avail. It is intimated that the ice are rather at fault in the matter, as the inoculators must be pretty well wn.

— Dr. Obalinsky, chief surgeon of the St. Lazarus Hospital, in Krakau, has orted in the *Centralblatt für Chirurgie*, No. 12, 1874, two cases in which the of cundurango for the cure of cancer was not attended with any success; he mentions that Friedreich gives a case of cure of cancer of the stomach by cundurango, and observes that many of those who have experimented wit this remedy have obtained negative results simply because they used in properly prepared specimens of the drug. Dr. Obalinsky determined therefo to try the remedy employed in the manner suggested. Two cases in his pr vate practice soon offered themselves: one a lady eighty years old, with a rode ulcer on the lower eyelid, about the size of a nickel cent; the other a lady fif years of age, with an epithelial cancer of the left side of the nose, of the size a bean, of three years' duration, and returning after repeated cauterization wi caustic potash. These patients took at first two, and later three, tablespoonfu of the medicine, and dressed the ulcers with charpie impregnated with the sam The patients returned home, and reappeared six weeks later, perfectly cure The writer reports these cases although they were not subjected to caref clinical observations, as they are, so far as he knows, the only instances of cu of external cancer by this drug. If we mistake not several cases have be reported where a local use of the drug has been attended with temporary in provement.

— At a recent meeting of the Medical Society of London, Dr. Farquharsc reported a case of unusually rapid action of the heart which occurred in soldier under his charge. The patient was afflicted with aortic valvular diseas After twenty-five days' treatment by digitalis he was suddenly seized with mo violent and rapid action of the heart, the pulse being 216, the breathing hurrie and the countenance pale and bathed in perspiration. Whilst the physicia had his hand on the wrist, two hours and a half after the beginning of tl attack, the heart suddenly stopped, gave several irregular beats, and, on resun ing, the pulsations were found to have fallen to 104. In considering the cau of the symptoms the reporter was inclined to agree with Dr. Handfield Jone in ascribing them to an exhausted condition of the vagi, leading to suspensio of their inhibitory power.

SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITA

[SERVICE OF DRS. HOMANS AND INGALLS.]

THE following operations were performed during the fortnight ending Fr day, April 30, 1875: —

1. Puncture of the bladder. 2. Sublingual mucous cyst. 3. Double hare lip (second operation). 4. Necrosis of the humerus. 5. Amputation o thumb. 6. Tonsillotomy.

1. *Puncture of the Bladder for Retention of Urine.* — The following case i reported as showing a very common mode of the primary treatment of urinary retention at this hospital. A boy, fourteen years of age, fell off a pile of boards on the 14th of April, receiving a moderate contusion of the right hip. The next day he had retention, which was relieved after considerable difficulty with a catheter. He had more or less retention till he entered the hospital on the 24th, when it was complete. Repeated attempts had been made to introduce a catheter, but without success, and there was a slight hæmorrhage

from the urethra as a consequence. At this time he was suffering great pain, and the bladder was distended to the umbilicus.

Dr. Ingalls made no attempts at catheterization, but immediately punctured the bladder just above the pubes with the aspirator, and drew off three pints of alkaline urine, with complete relief to the patient. The pain being slight, no ether was used.

The next day the patient was catheterized once; after that he passed his water very well, with the help of an occasional opiate or warm water enema. He was well on the 29th.

The treatment of retention by aspiration is an admirable one. The bladder is relieved; and the urethra is allowed to rest and recover from the temporary congestion, swelling, and tenderness which causes the retention. Generally only one, two, or three aspirations are required before the urethra regains its normal condition sufficiently to admit an instrument without much difficulty, unless there be a tight organic stricture. The relief is certain, the pain slight; and the danger is nothing, so far as is shown by the pretty large experience of this hospital. The operation may be repeated two or three times a day for several days with safety.

2. *Sublingual Mucous Cyst.* — A woman, thirty years of age, presented herself at the hospital with a large, soft tumor under the left side of the tongue. It had been noticed only five weeks, although it was two inches in diameter, and crowded the tongue upwards and to the opposite side. It was painless, but very troublesome on account of its size. The voice and deglutition were considerably affected. Dr. Homans punctured the tumor and found the contents to be a clear, glairy fluid, like that usually found in mucous cysts. A portion of the walls of the growth was excised.

These tumors, sometimes called ranula, were formerly supposed to be due to obstruction of the salivary ducts. They never contain saliva, but mucus, and are due to an obstruction of the mucous ducts and glands in the floor of the mouth. It does no good simply to open these cysts, as they are pretty sure to refill sooner or later; but some irritating application should be made to the interior, such as tincture of iodine. A seton is sometimes sufficient for the cure of a small cyst, but the best treatment is undoubtedly the one above mentioned, by removing a portion of the walls of the growth.

GEO. W. GAY, M. D.

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THE MEETING AT LOUISVILLE.

[SPECIAL CORRESPONDENCE OF THE JOURNAL.]

MESSRS. EDITORS, — As all conversation is apt to open with remarks upon the weather, I will say that it has been chilly throughout the week, with a gray sky nearly all the time, and with occasional dashes of rain. A Kentucky lady, traveling on the same train with some of our delegation, thought the spring to be at least a fortnight "in arrears." Indeed, in certain sections of the country there has been extreme cold, of late, and it is reported that extensive destruction of the fruit-crop will follow. As we rushed westward, the face of the country looked bleak and brown, with only occasional leafage of the trees, only now and then some blossoming; no green clothed the "knobs" of Kentucky, which, when in full summer gear, must undoubtedly go far to entitle the State to the epithet "nobby."

The convention is largely attended; yesterday, at least four hundred delegates were registered. The general meetings are holden in the very handsome hall of the Public Library Building, and the sections are "farmed out," some in churches, some in other rooms of the library building. The hall for the sessions of the general meetings is not only handsomely decorated, but is spacious and very commodious, with exceedingly comfortable seats. Speakers are readily and clearly heard throughout its area.

There seems, thus far, to have been entire harmony and good feeling pervading the sessions of this large assemblage, and business has been conducted with facility and promptness, so far as I have observed. One omission strikes me: as yet, no printed programme of proceedings, with localities designated for the business meetings and for the social entertainments, has been prepared. The programme has been orally repeated from the platform, and has to be remembered.

Western, and, *par excellence*, Kentucky hospitality, always proverbial, has been, from the date of our arrival, unstintingly manifested. One of our delegation, usually to be found on Boylston Street, Boston, stethoscope in hand, was waylaid by letter and telegram, and ravished from his companions to the blissfulness of private accommodations and unbounded hospitality; whilst most of us are whirled about in the vortex of the immense crowds that throng the magnificent corridors and halls of the Galt House, and the scarcely less commodious Louisville Hotel. It is not an easy matter to secure one's rations here. So overflowed is the Galt House, for instance, that the very spacious dining-room is packed and re-packed several times, especially at the dinner-hour, by hungry guests; and it is heart-rending to see the famishing crowd looking in upon the successful occupants of seats at the well-supplied tables, from the open folding-doors and wondering, doubtless, whether anything will be left for them!

Last evening a ball, and an elegant entertainment, given by the physicians of Louisville, kept the Galt House and its occupants in a blaze of light and excitement, until I know not what hour of the morning; for, as I did not enter the parlors, but only glanced at the brilliant throng flowing through the broad and lengthy corridors, and listened a while, from my corner, to the very fine music from two full bands, alternately performing, I can only give the testimony of others that it was a most successful and enjoyable affair. Thus, the same reliable authority to whom reference was made as having been snatched from us even before we reached Louisville, having gone through the mazes of the "mad revel," was able this morning to indicate to me, for your benefit, only the following somewhat disjointed points of information: "Flowers — ferns — ladies, young and old — Watteau picture (he meant a *living* one) — powdered hair — rose-embroidered dresses — supper simple but elegant — waltzing, promenading — celebrities — one unreconstructed." Now, if I had been there I could not have told the tale half so well!

Several entertainments, to be given by citizens at their own houses, are an- unced for the remaining evenings of the session, and a gentleman has also tended to the delegates a cordial invitation to visit a genuine Kentucky farm. any express a determination to visit the Mammoth Cave, about one day's urney hence. I hear of no general expedition being arranged for this trip.

I understand that there was a full attendance at all the entertainments given st evening, that the utmost decorum and good order prevailed and the easantest relations seemed to be established. The presence of ladies, the *ite* of the city, and the absence of wine, doubtless had a soothing and bene- ial effect upon the animal spirits.

The meeting seems thus far to have been successful, quiet, and pleasant, in marked degree. W. W. M.

LOUISVILLE, *May* 5, 1875.

COMPARATIVE MORTALITY-RATES.

MESSRS. EDITORS, — A table with this title has been published weekly in the OURNAL since this year began; its figures have been at times a little start- ng. To read a single column of figures, however, gives one but little in- rmation. We have therefore thought it well to take the different columns, nce the first of January, and see how often any one of the thirteen cities d towns stood first and last upon the list. The localities out of Massa- usetts are New York, Philadelphia, Brooklyn, and Providence. Those the State of Massachusetts are Boston, Worcester, Lowell, Cambridge, all River, Lawrence, Springfield, Lynn, and Salem. The table as prepared ads that New York stood first on the list, that is, that it had the largest umber of deaths to one thousand inhabitants, four times in those fourteen eeks; it stood second six times in fourteen weeks, and on two occasions ere was no record received from New York early enough for publication.

City or Town.	1st.	2d.	3d.	4th.	5th.	6th.	7th.	8th.	9th.	10th.	11th.	12th.	13th.	Un-known.
ambridge . . .	6	3	1	1	–	1	1	–	1	–	–	–	–	–
ew York . . .	4	6	1	1	–	–	–	–	–	–	–	–	–	2
ynn	3	1	3	1	–	1	2	2	1	–	–	–	–	–
all River . . .	2	1	4	–	2	4	1	–	–	–	–	–	–	–
alem	1	1	2	–	1	2	3	–	1	1	1	1	–	–
rooklyn . . .	–	4	2	1	2	2	–	1	–	–	–	–	–	2
oston	–	2	2	4	2	2	1	1	–	–	–	–	–	–
hiladelphia . .	–	1	2	2	2	2	4	–	–	–	–	–	–	1
awrence . . .	–	1	3	3	1	–	2	–	1	–	2	1	–	–
rovidence . . .	–	–	–	2	1	1	4	1	4	–	–	–	–	–
owell	–	–	–	2	4	2	–	–	2	3	1	–	–	–
orcester . . .	–	–	–	1	2	–	4	3	1	1	1	1	–	–
pringfield . . .	–	–	–	–	–	1	1	3	–	5	–	1	3	–

We present a table which gives the standing in annual mortality per 1000, as ported by the registrars in the different cities, and which we have placed in e order of greatest mortality-rate.

City or Town.	Average Annual Death-Rate per 1000 during 14 Weeks.	Largest Number of Deaths in One Week.	Least Number of Deaths in One Week.
Cambridge	30.500	48	20
New York	30.333	34	26
Brooklyn	26.083	30	23
Fall River	25.785	35	15
Lynn	25.071	43	8
Boston	25.000	28	21
Philadelphia	23.785	26	20
Lawrence	22.071	30	11
Salem	21.142	36	8
Lowell	19.785	24	16
Providence	19.769	27	15
Worcester	18.785	28	12
Springfield	10.642	19	6

We must confess that we are at a loss for an explanation of some of these figures. We are not surprised to find that New York and Brooklyn lead Boston in the death-rate, but we are surprised to find Cambridge, our neighbor, at the head of the list and Springfield at the foot. Neither does the mortality-rate of the former startle us more by its magnitude than that of the latter does by its very small proportion.

The death-rate in Cambridge is more astonishing than any other. In no week was it less than an annual rate of 20 per 1000; but in seven weeks it was over 30 per 1000. Once it was 47 and once it was 48 per 1000.

There is no particular satisfaction in discovering that Boston is less unwholesome than those five cities, when we look at the still larger number of more wholesome cities which succeed it on the list. ⁂

BOSTON, *May* 1, 1875.

[We quite agree with most of our correspondent's comments upon the weekly mortality-rates as published in the JOURNAL. A single week's statistics, taken by themselves, are of small value; but when they are reckoned as contributions for such general comparisons as the communication itself indicates, they assume an obvious importance. It should be remembered that vital statistics acquire significance in proportion to their comprehensiveness; a city's death-rate for a single week is of less consequence than that for a year, and that for a year is of less value than that for a decade, save in so far as it in either case serves as a "cautionary signal" pointing to exceptional local conditions of the place in question. That the unusually high death-rate reported by Cambridge, for example, is a temporary thing, arising from causes not at present recognized, is already beginning to be shown. On the other hand, if the mortality-rate of Springfield continued indefinitely as low as it has been since January 1, of this year, the population meanwhile increasing, we should naturally suspect something loose in the administration of the registration-act. As a matter of fact, however, the extremes meet sooner or later on middle ground; the death-rate of Springfield during the last nine years has been 18.6 to the thousand; while that of Cambridge during the same period was 18.5. — EDS.]

RESUSCITATION FROM CHLOROFORM NARCOSIS: NÉLATON'S METHOD.

MESSRS. EDITORS, — On the 3d of February, 1875, I amputated the left arm of a mulatto, twenty years old, who had sustained a compound comminuted fracture of the humerus, the limb having been crushed under a cart-wheel. On the second day after the injury I operated in my Infirmary for negroes at Savannah. On the 8th of March the patient was discharged with a well-healed stump.

What I wish to state of interest in the case is that while undergoing the operation under chloroform the man sank, his pulse and respiration becoming imperceptible. The medical student who was administering the anæsthetic said, "Doctor, the man 's dead!" Fortunately I had tied the arteries; I dropped the stump, examined the patient, and found him cold, pulseless, without respiration; I used all remedies and means to restore him, including Hall's ready method of artificial respiration; all failed. I then put three men on the table and directed them to hold the patient by the heels, head downward. There was complete relaxation of the entire muscular system; the lips, face, and hands were livid; breathing and pulse had ceased. Recollecting M. Nélaton's method of resuscitation, and that adopted also by J. Marion Sims, M. D., and Sir J. Y. Simpson, I used it and with the happiest results. The suspension over the table was continued a few minutes before the patient was restored. I replaced him on the table, sewed the stump up, dressed it with boiled linseed oil holding pure carbolic acid in solution, and on the 8th of March the man was discharged, and "returned to duty." ROB. P. MYERS, M. D.,
Supt. Georgia Infirmary.

SAVANNAH, GA., *March* 20, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending May 8, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

Pneumonia, rheumatism, bronchitis, and influenza prevail in all sections of the State.

In the Connecticut Valley, measles is increasing. A single case of varioloid in Holyoke is reported.

In Worcester County, measles and diphtheria have a local prevalence; "German measles" (rötheln) is reported.

In the Northeastern section, scarlatina and measles maintain their hold; several observers report "German measles." Acton reports cerebro-spinal meningitis.

The Metropolitan section has witnessed a general subsidence of acute diseases; the only noteworthy feature is the continued prevalence of rötheln and measles.

The Southern counties are also exempt from extensively prevalent sickness, bronchitis being the principal disorder.

In the State at large, all the diseases, except measles, have diminished in prevalence.

Scarlatina has its field of maximum prevalence in Middlesex and Essex counties; measles in Boston.

F. W. Draper, M. D., Registrar.

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COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MAY 1, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	556	28
Philadelphia	775,000	363	24
Brooklyn	450,000	189	22
Boston	350,000	142	21
Providence	100,000	38	20
Worcester	50,000	20	21
Lowell	50,000	16	17
Cambridge	44,000	14	17
Fall River	34,200	19	29
Lawrence	33,000	11	17
Springfield	33,000	16	25
Lynn	28,000	12	22
Salem	26,000	7	14

Books and Pamphlets Received. — Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States, for the Fiscal Year 1874. By John M. Woodworth, M. D. Washington. 1875.

Transactions of the New York Odontological Society. Special Meeting, December 14, 15, 16, 1874. Philadelphia: S. S. White. 1875.

Report of Inversio Uteri. By B. F. Dawson, M. D. (Reprinted from *New York Medical Journal.*)

Six Months Under the Red Cross with the French Army. By George H. Boyland, M. D. Cincinnati: Robert Clarke & Co. 1875.

Case of Intra-Laryngeal Tumor. By Beverly Robinson, M. D. (Reprinted from *American Journal of the Medical Sciences.*)

Sex in Industry. By Azel Ames, Jr., M. D. Boston: James R. Osgood & Co. 1875.

Appointment. — Dr. Elbridge Gerry Cutler has been appointed pathologist to the Carney Hospital.

Boston Society for Medical Observation. — A regular meeting of the society will be held on Monday evening next, at eight o'clock, at the hall in Temple Place. Dr. J. Collins Warren will report a case of tetanus.

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. XCII. — THURSDAY, MAY 20, 1875. — NO 20.

A CASE OF MYELITIS ENDING IN RECOVERY.[1]

BY G. H. LYMAN, M. D., OF BOSTON.

THE patient, Mrs. E. S. S., aged twenty-five years, was married at ineteen and has had one child, now five years old; no other concep- on has occurred. Her parents are healthy. She had typhoid fever x years ago; she has been in good health since, though not as strong s before; her complexion is clear and healthy, her nutrition good.

On the 16th of December she had a severe attack of measles; the ttendant cough was very urgent. The disease went through its usual ages without any other complication than the unusual severity of the ough, which still remains troublesome. The bowels are constipated. here is slight febrile disturbance, and some pain on pressure over the umbar vertebræ; there is no muscular twitching; the urine is normal. he patient reports that a week ago (January 1st) she found on awak- g in the morning that there was numbness of both feet, with pricking ensations as though the "legs were asleep," though she could stand, nd even walk with difficulty. In five or six days the numbness grad- ally extended to the hips, with manifest increase of loss in muscular ower. Hot and cold applications to the spine cause no pain. She is nable to distinguish any difference between a piece of ice and hot ater.

January 12th. In attempting to walk across the room the right leg as found to be completely paralyzed, the left nearly so; loss of sensa- ion was nearly complete below the hips, and there was some numbness n the right side of the chest.

January 16th. Slight relaxation of vesical sphincter.

January 19th. Both legs are completely paralyzed, the right more than the left. If rubbed, forcibly extended, or placed in an uncom- rtable position, they become rigid and painful, and spasmodic action is duced, more in the right than the left.

During the past week the spine, below the shoulder-blades, has been ufficiently painful to wake her at night. The past two days the atient has had a decided feeling of stricture about the waist, as though laced too tight. The ominous affection of the vesical sphincter has disappeared. The patient is now unable to stand or walk, and is oblige to be lifted; with much effort she can turn over in bed, and when a rest suffers no pain. Slight headache occasionally, which the patien attributes to medicine. The cough has nearly gone; the appetite i good; the bowels require daily laxative. There is no affection of special senses. The catamenia are regular. Electricity causes imperfec muscular reaction in both extremities, most in the left. The patien was seen to-day by Dr. Ellis in consultation.

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[1] Read before the Suffolk District Medical Society.

When first seen, on January 8th, a laxative pill of quinine, sulphat of iron, colchicum, and aloes was ordered. As the paralysis was no complete, and in the hope that it might be simple congestion of th cord, six leeches were applied to the lumbar region. There being n improvement, but a decided increase of the disease, this was followed in a day or two by ergot and bromide of potassium, a drachm of the former and half a drachm of the latter, three times daily, with goo diet and enough morphine and camphor to insure quiet nights.

January 27th. In addition to the above, strychnine, one thirtieth a grain, with fifteen drops of dilute phosphoric acid, was given twic daily alternating with the ergot, one dose of the latter being omitte She was also given lager beer and a still more generous diet.

January 30th. There is some return of sensation, and ability to fle the foot upon the ankle.

Two weeks later (middle of February) the patient was able to ris slowly from her chair without assistance. Ergot and bromide wer continued three times daily, the strychnine being omitted. Iodine wa applied daily to the lumbar region. Slow but steady improvement con tinued until March 20th, when the patient was able to walk up an down stairs.

April 1st. The patient has recovered entirely both sensation an motion, with no more weakness than would naturally result from be long confinement. The ergot has been gradually reduced during th past fortnight, and cod-liver oil substituted.

April 3d. Ergot is omitted entirely; the oil is to be continued for short time.

As recovery from myelitis is rare, it may perhaps be suggested th this was a case of reflex or neurolytic paralysis; but the completene of the paralysis, the slight pain in the spine caused by pressure on th processes, the stricture about the waist, the pricking sensations, the anæsthesia so complete, and the total absence of gastric or urinary derangements, all point to inflammation of the substance of the cord, whic fortunately had not progressed so far as to prove intractable to remedies.

WERNECKE ON THE THEORY OF APHASIA.

AN ABSTRACT.

BY JAMES J. PUTNAM, M. D., OF BOSTON.

THE group of symptoms which are seen in certain typical forms of the mysterious disease aphasia has recently received, at the hands of Dr. Wernecke,[1] of Breslau, a careful and scientific analysis, which is the more important because he has been able to find for his theoretical statements a substantial anatomical basis, thanks mainly to the fruitful labors of Professor Meynert, of Vienna.

The interest of the subject will justify this brief sketch of a work which, although clearly and charmingly written, is itself almost too concise.

An accurate conception of the physiology of conscious speech is best obtained by studying the origin and growth of consciousness and volition themselves, in the history of the development of the new-born child; for in its earliest manifestations of life they seem to take no active part. For the amount of muscular coördination required in the infant's first inarticulate crying, for example, even the machinery of the medulla oblongata alone, inherited ready for action, appears sufficient: the raw material of consciousness has yet to be supplied in the form of impressions from without, which it is the first function of the cortex cerebri (the future seat of conscious life), at birth a tabula rasa, to receive, and store up for future use. These centripetal impressions, destined for the cortex cerebri, fall into two distinct classes. The first class consists of the excitations coming through the various sensitive nerves of the body, and serving at once to excite reflex actions, of greater or less complexity, through the agency of the different central ganglionic masses, and to produce in the cortex cerebri the changes of which conscious sensations form the subjective side; the second class consists of the excitations arising in the ganglionic masses alluded to as reflex centres, and through them a picture is carried to the cortex cerebri of the processes in these centres by which the various reflex movements of the muscles are called out, such as play so prominent a part in the early life of the infant. These pictures, the reflection of the nervous processes which underlie the child's first involuntary movements, constitute the subject-matter of conscious motor ideas, soon to reappear, in modified form, as voluntary motor impulses, which are in reality the echoes of past involuntary acts.

There is reason to believe that the former of these two classes of impressions — the sensory — is conveyed to, and stored up in, the posterior (and temporal) regions of the cortex cerebri; the latter—the motor — in the anterior regions of the cortex.[1] Instantly on the occurrence of the inarticulate cry, for example, a certain part of the cortex of the infant's brain (probably of the temporal lobe) receives an impression corresponding with a conscious auditory sensation, and at the same moment the cortex of the frontal lobe receives a second impression (motor idea), which is the correlate of the coördinated muscular movement by which the sound was produced (both being expressions of the activity of certain reflex ganglionic masses at the base of the brain). At the next step in the process, these impressions, and the corresponding conscious ideas, become associated together (by means of fibrous tracts whose existence can be demonstrated), and associated also, in the first place, with other sensitive impressions, corresponding, perhaps, with the causes that gave rise to the cry. In this way a chain of associated impressions is created, the excitation of any link of which may in future cause this same cry to occur, the motor impulse arising now not in the ganglia at the base of the brain, but in the cortex cerebri and bearing the stamp of consciousness and volition. The number of these associated sensitive impressions goes on increasing with immense rapidity, representing the growth of consciousness in the direction of causation.

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[1] Der Aphasischer Symptomencomplex: eine psychologische Studie auf anatomischer Basis. Breslau. 1874.

This primary comparatively simple manifestation of conscious life soon inevitably becomes complicated in a new direction: at the same time with the sensory ideas, the number of associated motor ideas (*i. e.*, of possible voluntary motor impulses) is constantly increasing, so that, to revert to the previous example, on the recurrence of any one, the excitations which provoked the cry, ideas of crying, laughing, and of many other acts may be called up in consciousness, and that motor idea will finally prevail as a voluntary motor impulse, which is associated with the largest number of similar sensitive states of consciousness, or most intimately with any one of them, etc.; in other words, that which corresponds the best with the external influences to which the child has been subjected. With the ever-multiplying number of associated ideas, however, some delay will now inevitably intervene between the arrival of the excitation at any one point in the chain of associated sensory impressions on the cortex cerebri and the occurrence of one out of the many possible motor results; and in this delay, during which a number of sensory and motor ideas are being simultaneously or successively aroused in consciousness, one of which finally prevails over the rest, we see the physiological side of reflection, determination, action. It will thus be seen that every cerebral process, even one so complicated as that involved in conscious speech, is in fact a reflex process, though one of a high order; in other words, that every voluntary impulse must have been preceded at some time by an excitation arising outside the cortex cerebri.

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[1] The grounds for believing that the anterior lobes of the brain are motor, the posterior sensory, in their functions, lie mainly in the fact that the former are found, anatomically and pathologically, to be intimately associated with the motor, the latter with the sensitive, peripheral nerve-tracts; while, moreover, it has been shown (Hitzig, Ferrier, etc.) that by carefully localized excitation of certain parts of the surface of the frontal lobes, crossed muscular movements can be called out. Betz has furthermore found in the cortex of these regions ganglion cells of unusual size, which he considers to be the analogues of the motor cells of the spinal cord.

It is plain that in learning to talk, a child (unless deaf) depends for its sensory impressions upon excitations coming through the auditory nerves; it tries to reproduce the words it hears, running over its small stock of sounds until, by exclusion, it finds those with which the ear rests comparatively satisfied, long before it learns to associate them with the tactile and visual ideas whose presence is necessary to a complete conception of the thing which the words represent. Even when, at a later period, the names of things awaken a far-reaching train of associations in the mind, and speech represents something more than a jangle of sounds, still the strong association between the auditory and the motor ideas persists, the corresponding centres in the cortex cerebri are apt to be innervated in concert. When we think in words, the auditory centre is faintly excited, as well as that for speech; and when we express our thoughts, this innervation of the auditory centre also occurs, and exerts a controlling influence over the motor impulses that result in speech, an inappropriate motor impulse failing to arouse the auditory conception corresponding with the idea that we wished to express. Besides thus controlling speech, our auditory sense enables us to appreciate through the ear, and to correct, mistakes that we may chance to make in our spoken language.

With this amount of preface we may pass directly to consider the characteristic symptoms of aphasia in its different forms. Admitting for the moment the correctness of the reasoning given above, we can manifestly look for aphasic symptoms under either of the following three conditions: —

1. The *auditory centre* may be injured in such a way that the sound of words, though still heard as sound, is no longer in the position to call up the associated ideas necessary to the complete conception of the things the words represent (sensory aphasia). In this case the patient loses his power, to a greater or less extent, of understanding words, — is deaf so far as conversation goes, — but retains his vocabulary intact, and can use it in response to a visual or tactile excitation, although not with perfect correctness, because he has lost both the controlling and the correcting influence of his auditory centre. Cases of this class are rare, but Wernecke reports one of great interest. The patient, when asked, for example, to show the tongue, would look hopelessly around and make some inappropriate answer, but at the least sign from a bystander would put the tongue out correctly.

The typical lesion is in the temporal lobe, adjacent to the fissure of Sylvius. There is usually no hemiplegia.[1]

2. The lesion may affect the *associating tracts*, which pass close under the island of Reil (association aphasia), between the auditory centre and that of speech: the patient retains his comprehension of the meaning of words, and his vocabulary; he loses the controlling influence of the auditory centre and uses words incorrectly, but retains the correcting power of the ear, and by giving time and pains to it can speak pretty correctly. Light cases of this class are seen with persons in health, who get confused in talking, and misuse or forget words When the lesion is extensive, involving neighboring parts, there may be hemiplegia, or, from the nearness of the island of Reil to the optic commissure, hemiopia.

3. The *motor centres* (in the frontal lobes[2]) themselves may be affected (motor aphasia); in this case the vocabulary is almost lost, only "yes" or "no," or a few short phrases, remaining, which the patient uses under all circumstances, as a child cries, or a dog barks, under the irresistible impulse to use some form of vocal expression of the thoughts. This is the most common form of aphasia; there is almost always hemiplegia. The impairment of the delicate processes of coördination necessary to speech need not involve any appreciable interference with the other functions of the organs of articulation.

The degree to which agraphia (loss of the power of expression i written language) or alexia (loss of comprehension of written language will occur in connection with these different forms of aphasia depen somewhat upon the previous education and habits of the patient. child or an uneducated person speaks, aloud or to himself, as he reads and writes, and in his case the loss of the auditory centre would impair his proficiency in those respects. With a cultivated person, on the contrary, there may be an immediate association between the sight of a word and the conception of the thing, and he can read understandingly after the loss of his comprehension of spoken language. In spelling a written word, however, even the cultivated person must fail, for the sight of a single letter suggests no idea but that of its sound.

Apart from this, however, there is nothing in theory to prevent the power of expression of words in writing from being retained even when the power of speech is impaired, inasmuch as the motor centres for writing are of course distinct from those for talking, and might be innervated by an auditory or visual impression on their own account. This sometimes in fact occurs to a greater or less extent, although but rarely, because the associating tracts between the auditory and these two motor centres lie probably in close conjunction and generally suffer together.

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[1] Deaf-mutism is studied to advantage in this connection.

[2] Usually, as is well known, the left.

The author calls attention to the facts that pure cases of these varieties of aphasia, admitting of this exact diagnosis, are rarely met with. The most favorable time to examine them is after the disappearance of acute irritative symptoms, and before the occurrence of secondary morbid changes. Patients of the first and second class are sometimes taken for insane on account of their strange confusion of speech.

For many interesting details, anatomical, physiological, and philosophical, omitted of necessity in this brief sketch, the reader is referred to the original.

Attractive as these explanations are, they must be, and indeed are, admitted to be as yet crude and suggestive only.

The fact that the power of understanding words is lost in case of unilateral lesion of the auditory centre would oblige us to believe that the interpretation of sounds as words, like the origination of speech, occurs in one half of the brain alone, of course with the aid of either ear. At all events, however, the tenability of the following position must be admitted by all: to be conscious we must be conscious of something; if we think, our thoughts must take the form either of words, that is, the remembered images of words, spoken or written, or else of tactile, visual, or auditory images, — in other words, either of sensory or motor ideas. In the developed consciousness a thought is actually compounded of vast numbers of these sensory and motor ideas, associated together often in a net-work of infinite complexity, and any disturbance of this association must involve a disturbance of the thought and the result of the thought; for example, its outward expression in words: for, looked at physiologically, the existence of thought in the form of motor ideas means the faint excitation of those motor centres (centres for speech, etc.) whose stronger excitation induces the outward expression of the thought in word or gesture. Furthermore, there is every reason to believe that the original source of these excitations must lie, or have lain, outside the hemispheres of the brain.

It is the merit of this little book to have clearly applied this psychological reasoning to the study of the development of conscious speech, and to have shown (by facts of necessity omitted in this abstract) how the anatomical structure of the brain, so far as we have become acquainted with it, is, in certain respects, such as theory might have led us to expect.

RECENT PROGRESS IN OTOLOGY.

BY J. ORNE GREEN, M.D.

Membranes and Bands in the Middle Ear (Synechiæ). — The conducting mechanism of the ear, which includes the membrana tympani, the ossicula, and the secondary membranes of the labyrinthine windows, has been long recognized as the seat of the great majority of diseases which affect the functions of that organ, and the study of the conditions which interfere with the mobility and vibratile power of this delicate mechanism are of the greatest importance. In addition to the general thickening of the tympanic mucous membrane around the conducting media, and adhesions as the direct result of well-marked purulent inflammation, dissection has often shown the tympanic cavity to contain bands and fibres running across it in various directions. These bands and fibres have been differently explained by writers. Toynbee considered that they originated from a fibrinous exudation on the inner surface of the membrana tympani, which was converted into a firm and vascular membrane, or that, during a swelling of the mucous membrane, adhesion took place between two opposing surfaces, and this adhesion became stretched into a band as the membrane returned to its normal condition. Troeltsch and Gruber apparently agree with Toynbee in his explanation of the formation of these bands; while Politzer has considered them to be the remains of the gelatinous tissue which completely fills the tympanum of the fœtus. Wendt[1] now gives the results of his investigations, which are the most thorough yet published. He finds the situation of these bands and fibres very variable and their existence inconstant; they may connect the walls of the tympanic cavity or the mastoid cells, or may run from one ossicle to another or from the ossicula to the walls of the tympanum or the membrana tympani. Microscopic examination shows that they consist normally of loose connective tissue on a net-work of tense fibres; but in a pathological condition they show sclerosis, cicatricial thickening, calcification, and ossification. He considers that they originate sometimes from the gelatinous tissue of the tympanum in fœtal life, and sometimes from swelling with proliferation of cells and from true granulation tissue. It can readily be understood that the situation and condition of these bands may be of the greatest importance to the ear, for the stronger and more rigid they are, the more they may interfere with the vibratory power of the conducting mechanism; if they bind the membrana tympani to the promontory, the hammer to the stapes, the stapes to the walls of the tympanum, or close the tympanic orifice of the Eustachian tube, they interfere most seriously with the conduction of sound to the auditory nerve; while if they merely unite different parts of the osseous tympanic wall, there may be no interference with the functions of the ear.

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[1] Archiv für Heilkunde, xv.

The pathological importance of these bands can hardly be overestimated, for even if in a healthy ear they exist as a remnant of fœtal life across parts of the conducting mechanism, but in such a lax state that they do not restrain the vibrations of this mechanism, still, being covered with mucous membrane, they are liable to become tense from any slight inflammation and contraction of this mucous membrane, and thus to cause great immobility of the vibratory parts where the slight catarrhal inflammation in an ear free from these bands would have done but little injury.

The diagnosis of these bands during life is possible where one point of insertion is the membrana tympani, and where this membrane is sufficiently transparent. By means of Sieglé's speculum, which allows suction to be exerted on the membrane at the same time that inspection is used, the point of insertion of the intra-tympanic band is seen to remain fixed, while the rest of the membrane moves outwards. Where, however, the bands are not attached to the membrana tympani, the diagnosis of their existence must be uncertain. Wendt denies the diagnostic value of the indrawing of the membrana flaccida as a proof of synechiæ between the hammer and the stapes, which had been insisted upon by Zaufal, as he has often found on dissection the membrana flaccida drawn inwards without any synechiæ existing.

In regard to treatment, Wendt lays particular stress on preventing the formation of these bands during a swelling of the mucous membrane of any kind, either with or without perforation of the membrana tympani. This can be done by keeping the surfaces apart by inflation of air into the tympanic cavity. Where the bands have already formed, it is possible, Wendt thinks, to excise them; but Trautman suggests that catheterization by stretching and pressure would cause atrophy of the bands if they were not very strong, and would be more likely to produce a good result than an operation which offers so much difficulty in its performance as excision.

Diagnosis of Serous Exudation in the Tympanum.—Hagen[1] gives the results of his experiments on the diagnostic value of percussion of the skull; and although in most particulars these were negative, still he claims that in cases of serous exudation in one tympanum we have a valuable aid to our diagnosis in percussion. It must, however, be understood that the results of percussion are in these cases subjective and not objective; that is, the change in the sounds is perceptible only to the patient and not to the observer. On this account the value of this method is limited, as we must depend wholly on the patient's intelligence and on his powers of observation.

In percussion of the skull, either with the finger or with a hammer and plessimeter, Hagen finds that the sound of the blow is heard by the patient in nearly the same way that a vibrating tuning-fork is heard when placed on the skull; *i. e.*, on the middle of the head it is heard equally in the two ears, provided that both ears are healthy; but when carried towards one ear, it is heard loudest in the ear nearest which it is; also, if one meatus is tightly closed, it is heard loudest in the closed ear, no matter on what part of the head the sound is produced. When, however, the tympanum contains serous fluid, he finds that percussion on any part of the skull produces a peculiar rattling in the diseased ear which is distinctly heard by the patient. The removal of the exudation from the tympanum, either by suction through the tympanic catheter or by paracentesis, causes an immediate cessation of the rattling. Hagen has found this subjective rattling so constant that, in cases in which the membrana tympani is not transparent enough to allow the characteristic yellow color of the fluid to be seen through it, he considers the presence of this rattling sound diagnostic of serum, and treats the case accordingly. He has not found this symptom to exist with other varieties of tympanic exudation.

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[1] Monatschrift für Ohrenheilkunde, No. 10, 1874.

Zaufal has been able to confirm this observation of Hagen's in two cases; but he has also observed the same rattling in the same disease with the inspiration of the patient or as the result of sneezing.

Removal of Serum from the Tympanum. — The methods of freeing the tympanum from exudations which interfere with the functions of the ear, and keep up the inflammation of the cavity, have been heretofore the inflation of the cavity by air, thereby scattering the fluid over a larger surface and promoting its rapid absorption, injections of mild alkaline liquids to render the exudations more fluid, and paracentesis of the membrana tympani when the milder methods failed. All of these methods are occasionally objectionable and inefficient, as Gruber[1] points out; for, as the tympanic orifice of the Eustachian tube is often in the upper part of the cavity, the air may enter the tympanum perfectly without affecting the serum collected on its floor in the least; and again, even if the membrana tympani is perforated, a portion of the liquid may lie below the edge of the perforation and serve to keep up the inflammation. Although, in such cases as these, the remaining liquid may be sucked out of the cavity by means of Sieglé's speculum, still the use of this instrument increases the congestion of the whole middle ear, and this increase of the congestion sometimes more than counterbalances the good effect of the removal of the serum. To remedy the defects of these different methods of evacuation, Gruber proposes the evacuation of the fluid by means of a small aspirator specially designed for the purpose, with rings by which it can be held steadily. The metallic end of the aspirator is inserted though a perforation of the membrana tympani, either natural or artificial, and by suction the intra-tympanic fluid is drawn out. The instrument is so made that it can be used with one hand; but for a thorough description we must refer to the original article, with its sketch. With this instrument, Gruber has had very satisfactory results, and claims that the end of the aspirator can be passed even as far as the entrance to the mastoid cells.

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[1] Monatschrift für Ohrenheilkunde, No. 12, 1874.

Primary Epithelial Cancer of the Middle Ear. — Cases of malignant growths of any part of the ear are very rare; but a few such have been described. A few cases are reported of epithelioma of the auricle; of the deeper parts, we have three cases of osteosarcoma of the temporal bone, one of sarcoma of the mucous membrane of the middle ear, and six of carcinoma of the ear, some of which perhaps originated from the middle ear. In addition to these, Schwartze[1] gives the minute history of a case of primary epithelial carcinoma originating in the mucous membrane of the tympanic cavity. A man aged fifty-five had suffered from otorrhœa since scarlatina in childhood; pain then began in the ear and side of the face, and from the infiltration over the mastoid and a considerable hæmorrhage through a perforation of the membrana tympani the diagnosis of caries and ulceration of a large vein was made. Through an incision of the mastoid, a large sequestrum was removed, without, however, any relief to the extreme pain in the ear. The opening then closed, but the bleeding continued, and another opening of the mastoid, one month later, showed the petrous bone carious, and the carious parts were removed with a sharp spoon. This produced relief to the pain and bleeding for a time, but both returned after a few weeks, granulations began to show themselves in the meatus, and complete paralysis of the facial nerve followed. Small bits of necrosis continued to come away, the cutis around the auricle became infiltrated and developed a large ulcer, the patient became anæmic, and died from marasmus after three days' sopor. The autopsy showed the pia mater œdematous, slight pachymeningitis over the petrous bone, the transverse sinus partly obliterated and partly filled with pus, and the jugular vein with a large organized thrombus; the temporal bone was largely destroyed, the membrana tympani gone, but the labyrinth wall intact. Microscopic examination of the ulcer, the cervical glands, and the dura mater over the petrous bone showed characteristic epithelial carcinoma.

As in the beginning of the disease the bleeding came from the tympanic cavity, while the membrana tympani was nearly entire, and as primary epithelial cancer of bone never occurs, it seems probable that the disease in this case had its origin in the mucous membrane of the tympanic cavity. The duration of the disease in this instance was about one year. From the fact that in most of the previous cases of malignant disease of the middle ear there was no anterior history of otorrhœa, Schwartze is inclined to doubt the ætiological connection between the otorrhœa and the malignant disease in this case; but he acknowledges the possibility of such a connection. The whole case is interesting as showing the difficulty of distinguishing a malignant disease of the ear from caries necrotica; but Schwartze thinks that microscopic examination of a part of the granulation tissue would render the diagnosis certain.

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[1] Archiv für Ohrenheilkunde, No. 9, page 4.

Fatty Metamorphosis with Partial Destruction of Corti's Organ. — To the pathology of the nervous parts of the ear Moos[1] contributes two cases. The first was that of a woman aged forty-seven, who, from a cold, noticed anæsthesia of the left side of the face and left nasal mucous membrane, with hypersecretion of mucus; paralysis of the whole facial followed, with headache, dizziness, and diminution of the power of hearing and tasting. During the next year, diminution of the visual field, diplopia, contraction of the left pupil, convergent strabismus, unsteadiness of gait, and ataxic movements of the left arm set in, and death resulted from suffocation. The autopsy revealed a vascular spindle-celled sarcoma of the size of a walnut on the porus acusticus internus, through which the auditory nerve passed. A portion of the membranous spinal lamina was completely changed into a mass of detritus, cholesterine, and fatty cells; where the membrane was less changed, its teeth showed rows of fat corpuscles and the interdentate cells had undergone fatty degeneration. Corti's membrane and the membrana basilaris had lost the longitudinal striated appearance, and showed parallel rows of fine fat globules. All the other tissues of the cochlea showed fatty degeneration; the vestibule was normal, but the ossicula, especially the stapes, were but slightly movable; the tympanic mucous membrane was thickened. This abnormal thickening of the mucous membrane Moos attributes to a secondary trophoneurotic disease, the result of the intra-cranial tumor.

The second case was that of a man seventy-five years old, who suffered from childhood from an increasing deafness and subjective noises, and finally became totally deaf. During the last six years of life he had two apoplectic strokes, from the second of which he died. The autopsy showed in addition to the apoplexy, complete immobility of the ossicula and the round window closed by osseous deposit. Microscopic examination of the labyrinth showed almost exactly the same changes as those of the preceding case.

The two cases are interesting as showing the same degeneration of the nervous structures of the ear, caused by two entirely different diseases; the first case being one of degeneration of the nerve from intra-cranial pressure, the second one of degeneration from disuse, sound waves being unable to pass through the rigid ossicula. Moos's supposition that the thickening of the mucous membrane in the first case was a secondary neurotic affection has probably occurred to others who have had an opportunity of observing aural trouble in connection with cranial disease.

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[1] Archives of Ophthalmology and Otology.

The first case is of especial interest as a refutation of the observation of Virchow that the auditory is the only cranial nerve which never develops new growths.

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PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M. D., SECRETARY.

FEBRUARY 22, 1875. — *Extensive Scirrhous Disease of the Stomach.* — DR. JACKSON showed the specimen, which he had received from Dr. J. L. Bennett, of Bridgeton, Maine.

The patient was a merchant about sixty-five years of age; the disease had been coming on for about eight months, and for four months he had kept his house and his bed. The disease was not hereditary. From the first he had done no business, he had emaciated from about one hundred and eighty to one hundred and ten pounds, and had lost strength and color in proportion. About the time that he took to his bed, he vomited considerably, a " coffee-ground " fluid. There was, however, not much vomiting at any other time, until the last two weeks, and then it was not urgent. Acidity was a very marked symptom throughout, and there was a sense of discomfort at the epigastrium before the acid rising, but there was scarcely any pain. The appetite was tolerable throughout. The constipation was moderate, but the magnesia that he took for the acidity, with a little rhubarb, and an occasional enema, kept the bowels sufficiently free. A tumor was never felt.

The pyloric portion of the stomach was throughout very much thickened and condensed, and to a considerable extent deeply ulcerated, the disease stopping abruptly at the pylorus. Along the small curvature, the mucous membrane and the submucous cellular tissue were in an early stage of the same disease, which gradually lessened, and stopped considerably short of the cardiac orifice. The stomach was quite large, and the contents, in the recent state, were dark. The other organs Dr. Bennett reported as healthy.

Dr. Jackson remarked upon the frequent occurrence of this form of disease in former years, and its great rarity of late; and the same, he thought, might be said of some other diseases. For a period of years they are common enough, and then they are lost sight of, and a generation of young physicians may come up who never see a case. The striated appearance of the thickened muscular coat and the smoothness of the dense, colorless base of the ulcerated portion of the organ in the present case were very characteristic.

Basilar Meningitis. — DR. CABOT reported the case. The patient, a man, had lost his nose from a rodent ulcer, probably of hereditary syphilitic origin. Local treatment having failed, he was put on large doses of the iodide of potassium, and the ulcer healed. A plastic operation, the flap being taken from the forehead, was successful; but on his return to the Massachusetts General Hospital to have some improvements made by "trimming things up," the patient had a discharge from his right ear. After a short time he died.

Dr. Cabot spoke also of another case where there was redness over the mastoid region, and stupor and other cerebral symptoms set in; the mastoid cells were trephined, pus was evacuated, and the patient recovered.

Dr. J. Orne Green, who had seen the first case in consultation, said that when he saw the patient he had found purulent inflammation of the middle ear, with perforation of the membrana tympani. The mastoid inflammation had ceased. He ordered the ear to be washed out and a mild astringent injection to be applied. That same evening the patient was seized with violent pain in the head, with delirium and coma, and he died in thirty-six hours.

The report of the autopsy is as follows: There was venous congestion of the whole arachnoid, most marked in the occipital region. Both lateral ventricles were filled with serum, that in the left clear, that in the right slightly purulent. There was slight inflammation of the meninges of the whole base of the cerebellum, the medulla, the pons Varolii, and the upper part of the spinal cord, with a purulent deposit over the surface, nearly equally distributed, but more marked on the left than on the right side. No purulent deposit or specially marked inflammation was observed along the auditory nerve. The lateral and petrosal sinuses were normal. The right petrous bone was removed entire. Beneath the dura mater, on the upper and posterior surfaces of the bone, over a space three quarters of an inch in circumference, a minute deposit, perhaps two drops, of very thick creamy pus was found; the dura mater over this deposit was thickened and somewhat inflamed. The bony roof of the tympanum and the antrum mastoideum were inflamed, but not in the least softened, and the deposit of pus lay between this spot and the petrosal sinus and not over the inflamed bone. The roof of the tympanum was unusually thick; after its removal the cavity of the tympanum filled with sero-purulent fluid; the whole mucous membrane of the tympanum proper and of the antrum mastoideum was enormously swollen and congested. The mastoid cells were few in number and were filled with the same thick, serous fluid as the tympanum proper. The ossicula were in position and uninjured. The membrana tympani was a little swollen and red; just below the manubrium was a small perforation, of the size of a pin-hole; around this was a circular depression one eighth of an inch in diameter, probably cicatrix from the healing going on in the perforation. There was slight congestion of the walls of the osseous meatus. No inflammation of the external surface of the mastoid or of its periosteum, was observed. In this case the exact course of the inflammation from the middle ear to the meninges could not be followed, but in many cases it can be traced.

Dr. Jackson said that he had examined many cases of meningitis, following so-called otorrhœa, and had been struck with the healthy condition of the parts between the diseased middle ear and the meninges, the inflammation seeming, as it were, to begin over the petrous portion of the temporal bone.

Dr. Green said that a line of inflammation could generally be traced between the two regions, through either the aqueductus vestibuli or some of the other canals which connect the middle ear with the cavity of the brain, although in this case such was not the fact. Here the disease of the ear might perhaps have been the exciting cause of the meningitis in a person predisposed to the disease. Some of the modern German pathologists refer the cases mentioned by Dr. Jackson, where the disease apparently jumps over the bony division, to a thrombus of the petrosal sinus, caused by an extension of the inflammation along the petrosal-mastoid canal, which conveys a vein from the mastoid cells to the petrosal sinus. He said that the second case reported by Dr. Cabot was of interest, as showing that even after cerebral symptoms have set in, a cure may be effected by giving a free issue to the confined pus.

Monophthalmus. — DR. WADSWORTH reported a case that had come under his observation, the patient being a child five or six years old. The left eyeball was represented by a very small amount of semi-transparent tissue at the bottom of the orbit, the lids being normal, with the exception of the lashes being perhaps a little short. The other eye, as far as could be seen, was normal, which is contrary to rule, as usually in cases of monophthalmus the eye shows some affection of the iris or choroid. This malformation is less common than a congenital absence of both eyes, and it is hard to conceive how it is brought about, unless we assume that, as the eyeball is formed before the lids and orbital muscles, the former become atrophied from some cause, during fœtal life.

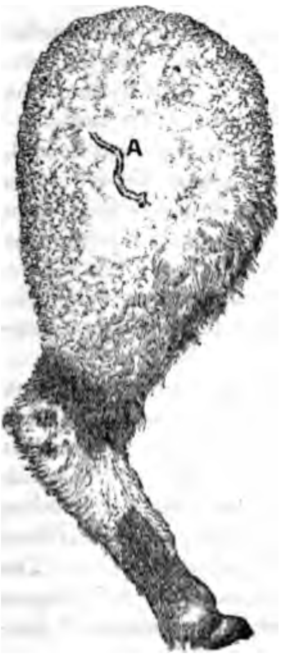
DR. JACKSON observed that he had seen a case of monophthalmus in a monstrosity.

MARCH 8, 1875.— *Lymphangitis of the Broad Ligament.* — DR. SHATTUCK reported the case. The patient died with the symptoms of septicæmia. The autopsy was made by Dr. Fitz, and showed a purulent infiltration of the right broad ligament in a nodular form, the neighboring lymphatics being filled with pus. One of these nodules, of the size of a walnut, was immediately below the origin of the Fallopian tube; another, somewhat smaller, was distant from the former about an inch and a half, and a half inch below the tube. The uterus was apparently undergoing normal retrogression, and the right Fallopian tube presented no abnormal appearances. There was no evidence of peritonitis.

Peritonitis, followed by Pelvic Cellulitis in a young Girl. — DR. MINOT reported the case as being interesting from the youth of the patient. She was a healthy subject, thirteen years old, and normal as to her menstrual function, with the exception that the duration of the period was a little short. Three days after her period, without known cause, she had an attack of peritonitis, with pain, most severe in right iliac region, where there was also dullness on percussion, but no defined tumor. She was ill some time, but began to improve, and had a discharge of several ounces of fœtid pus from her vagina. This gradually diminished in amount, and in three weeks ceased entirely. She used an injection of a weak solution of carbolic acid three times daily. Owing to her youth, and the fact that she steadily improved, no vaginal examination was made.

DR. LYMAN spoke of a case of peritonitis coming on after exposure to cold during a long sleigh-ride; there was marked hardness, and pain on micturition and defecation. He feared that an abscess would result, but the induration gradually disappeared and the patient recovered.

A Remarkable Monstrosity. — DR. BEACH showed a specimen which had been sent to him by Dr. F. H. Hooper, of New Bedford. It was that of a lamb born at the same time with a perfectly developed living mate; it was inclosed in a separate sac, and consisted of a single hind leg terminating in a hoof, as shown in the figure. Its length was eleven inches; its breadth at the widest part, four inches; and its thickness (at A) two inches. The upper half of the monstrosity was flattened, rounded at the end, and covered with wool, while the lower half was well formed and covered with hair. The umbilical cord (A) was attached at a point four inches from the superior border, and midway between the two sides. On laying open the specimen, it was found to be very œdematous, and was therefore placed in alcohol and allowed to remain long enough to harden the soft parts for a more complete examination. This œdematous condition has been observed in three acephalic monstrosities examined by Dr. Jackson and described in the catalogue of the museum belonging to this society. On dissection, the shaft and lower extremity of the femur, the tibia, and the bones of the foot were found in every way normal, while the pelvic bones were very imperfectly formed and closely connected with each other by cartilage. Above these last, and lying loose in the soft tissues, were found several small vertebræ, irregularly developed, fused, curved upon each other, articulating with corresponding ribs on both sides, and divided into lateral halves by cartilage, which extended along the median line. The ribs of one side were fused, tolerably well developed, and joined to the sternum by cartilage; those of the opposite side were imperfectly developed, and expanded anteriorly into a thin, irregular plate of bone; these also connected with the sternum. The latter consisted of three small bones united by cartilage. A mass of muscle and connective tissue surrounded the bones; the identification of separate muscles was impossible, from their irregular and imperfect development. The umbilical cord was traced as far inward as the ribs, where it joined some small vessels that finally became lost in the soft tissues. The space within the ribs was filled with intestine thirty-two inches in length, of nearly uniform thickness and calibre, and varying from one eighth to one third of an inch in diameter. There was no division into small and large intestine, but at each extremity it expanded, became somewhat pyriform in shape, and was completely closed; it was partially filled by a dark, greenish-colored and gray pultaceous substance. The result of its analysis by Dr. Wood, who detected in it the presence of biliary pigments and biliary acids, is interesting from the fact that no trace of a liver could be discovered.[1]



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[1] "A fact worthy of remark is the ordinary and perhaps constant existence in the intestine, not of true meconium, but of a mucous matter. Kundmann and Gilibert are the only au-

Two ovoid bodies, one about one third of an inch long, and the other half that length, were attached to the muscles about the ribs. They were surrounded by a serous membrane which was partially covered with blood-vessels, and were continuous with a small cord that was soon lost among the tissues. Their gross appearance suggested that they might be testicles, and this view was confirmed by Dr. Fitz, who found them on microscopical examination to be composed of uniformly shaped tubules containing granular cells of an epithelial character. A small hard body, resembling a molar tooth in form and closely attached to the ribs, proved by the microscope to be bone. The vertebral canal was filled with a firm fibrous material, but nothing resembling the spinal cord in appearance was seen. No viscera beyond those above described were observed.

Dr. Beach quoted St. Hilaire to the effect that we must study "acéphaliens" in the human species, as they are so rare in animals. Of one hundred cases which were known to St. Hilaire, he found only six among animals. They were all ruminants, and of species which, like the human, generally produced one at a birth. The goat furnished one example, the deer one, and the sheep four.[1] He considers that the binary form is constant, although it is not manifested to the same degree in all specimens. Even among the most imperfect varieties, it is always possible at least by dissection to distinguish both halves of the body, or, more exactly, the two homologous but dissimilar parts into which it is divided.[2] He subdivides the "acéphaliens" into the acephalus, the paracephalus, and the mylacephalus.

The specimen just described did not present the binary form externally, and the appearances observed on its dissection barely corresponded with the above statement of St. Hilaire. It belongs to the third and rarest variety (the mylacephalus), of which that writer gives three cases which occurred in the human

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thors whose evidence tends to disprove this generalization. They merely state that they have seen the intestines filled with meconium; it is probable that they have, as this name is often applied to the contents of the intestine, regardless of the scientific meaning of the term. (St. Hilaire, Anomalies des Organisations, iii. 511.)

Mr. Stanley, in a paper on Tumors of the Pelvis, states that "a circumstance of physiological interest will be noticed in two of the foregoing cases, namely, the existence of a fluid in the isolated portion of intestine within the parasitic monster, which in color and other obvious characters closely resembled meconium, although there existed no liver or other distinct hepatic apparatus which could have furnished the coloring-matter of this fluid, and there was certainly no communication between this portion of the intestine and the intestinal canal of the child to which the parasitic monster was attached. An analogous fact occurred to my observation many years ago in the examination of an acephalous lamb, in which, with perfectly-formed stomach, intestine, spleen, and kidneys, the liver was wholly wanting, and yet within the intestine, especially the large, there was found a considerable quantity of a dark and thick fluid, not to be distinguished by its appearance from meconium. When diluted, the color of this fluid was exactly that of healthy bile, but it was not bitter to the taste, and in this respect it differed from the perfect meconium of the human fœtus, which imparts to the tip of the tongue the peculiar bitter flavor of bile." (Medico-Chirurgical Transactions, xxiv. 237.)

The dissection of an acephalous monstrosity described in the catalogue of the Boston Society for Medical Improvement (page 245) showed the intestines containing "a considerable quantity of nearly colorless mucus, with some white, curdy flakes, and in the small intestine some traces of a greenish color."

[1] Op. cit., page 498.

species, while he mentions two only as observed among the lower animals; one of these latter was a lamb and the other a kid, the only specimens entitled uniped. The first was described and figured by Emmert.[1] It was born in a separate sac, and seemed at first sight to be merely the left limb of a lamb with some rudiments of the right limb and the tail. On dissection, the pelvis, the inferior portion of the vertebral column, some imperfect viscera, a portion of the intestine, and some rudiments of the head were found.

The second was observed by Hayn and is described by Ollivier.[2] The body was ovoid in form and terminated in a single hind extremity, which contained only a single bone, a bifurcated phalanx. The pelvis was reduced to one of the ilia, and near it was what might be considered a vertebra; in it were found the rudiments of the spinal cord. The intestine, the sexual organs, and other viscera, not named, were rudimentary. This uniped was born as usual with a well-formed twin, from a goat which three years previously had given birth to a three-legged kid.

Otto, in his great work on monstrosities, describes only two acephali: one was human, and consisted of a body and lower extremities, but no upper; the other was a calf, and limited to a body, with no upper or lower extremities.

Dr. Jackson made some remarks on this form of monstrosity, and said that his observation of such cases agreed with the authorities quoted by Dr. Beach.

Embolism of the Coronary Artery, with Symptoms of Angina Pectoris. — Dr. Fitz showed the heart from a patient of Dr. J. W. Chase, of Dedham. It was moderately enlarged, and presented a red patch two thirds the size of the palm of the hand, near the base of the left ventricle. The pericardium here was coated with a layer of delicate false membrane; it was injected and ecchymosed. On section through the corresponding walls of the ventricle, the muscle was in part of a yellow, opaque appearance, and dry, with ecchymoses. The fibrils were in a granular and fatty condition. The left coronary artery was extensively atheromatous and an inch from its origin contained an embolus three quarters of an inch in length, grayish-red, completely obstructing the vessel and moderately adherent to its wall. An examination of the cavity of the left ventricle showed extensive fibrous degeneration of the wall, with thinning, and several old parietal thrombi beneath the curtains of the mitral valve, one of which was very loosely attached.

The patient was a male, seventy years of age, who, for the past fifteen years, had suffered from palpitation and dyspnœa, with attacks of a "distressed feeling" in the cardiac region. Four days previous to his death he was suddenly seized with a distressed feeling and an intense pain in the region of the heart, extending down the left arm. He also complained of pain in the back. The pulse was 70, soft and intermitting. Nothing abnormal was heard on auscultation, nor was there any decided feeling of anxiety. Relief was obtained after the subcutaneous injection of a quarter of a grain of morphia. A sleepless night followed this attack, the feeling of pain and discomfort in the cardiac region persisted, and the pulse increased in frequency. The day previous to his death he felt somewhat better, but in the evening was again seized with ense pain referred to the heart; it was so severe that he could not lie down, remain quiet. This continued for several hours, when death took place ost instantaneously, while the patient was arranging the pillows of his bed.

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[1] Archiv für Physiologie, vi. 1.

[2] Archives Générales de Médecine, vii. 14.

Chronic Erythema of the Face; Revulsive Treatment by Blisters on the n; Recovery. — DR. ABBOT reported the case of a middle-aged lady, who l been suffering during the greater part of a year from chronic erythema of face. The attack commenced with an indolent, very painful pustule on right side of the septum of the nose. The whole organ was much red- ed, swollen, and tender. The pustule was very slow in its progress, and re were several renewals of the inflammation at the original spot. These cks were accompanied and followed by more or less erythema of the face, the form of large patches on the cheeks and forehead. During the lemic of small-pox in Boston in the latter part of the year 1872 and the inning of 1873, the patient was re-vaccinnated and had a very sore arm in sequence. At the time of vaccination there was much inflammation of the , which entirely subsided, while the inflammation produced by the vaccina- lasted. As this subsided the erythema returned to the face. This affec- had been previously treated by various remedies without any very satis- ory result.

Vhen seen by Dr. Abbot, January 6, 1873, both cheeks were marked by e patches of livid redness, which were very tender and gave to the touch sensation of considerable thickening of the derma. The nose at times was r red and sore, and the affection as a whole was a great disfigurement a source of no little suffering. Acting on the hint given by the vaccina- , it was determined to try the effect of revulsive treatment. A blister two es square was applied to the outer surface of the left arm. As this was ling, a second was applied on the healthy skin above. In this way a suc- ion of blisters was kept up for a month, securing a continuous irritation of part. Under this treatment the inflammation of the face and nose grad- ly subsided, and at the end of that time had entirely disappeared. During next two months there was an occasional return of the erythema, but it nediately disappeared on resuming the blister-treatment. There has been return of the affection since, a period of about two years.

Notencephalus. — DR. JACKSON showed the cranium of a typical specimen. e frontal and parietal bones were very much depressed, and especially upon right side. The posterior portion of the occiput was in two broad pieces, l widely separated, so as to leave an opening in the back of the skull that uld admit the ends of four fingers; it was fused with the lateral portion upon left side, but not upon the right. Upon the median line, superiorly, was a ll, triangular, and separate bone that connected the parietals and posterior ipitals. Otherwise the skull was not remarkable, excepting a certain distor- (which is not uncommon in such cases), and a fusion of the two lower xillary bones. The cervical vertebræ were preserved, and showed a wide aration of the laminæ of the first.

At the previous meeting Dr. Jackson had shown the subject entire, which had received from Dr. C. A. Goldsmith, of Methuen. It was a female ld, born last October, perfectly preserved by spirits, and weighing before dissection seven pounds and seven ounces. The mother was a very small and sickly woman. The child presented by the head, kicked vigorously just before expulsion, but did not move afterwards, and was pulseless, though the heart beat for twenty minutes.

From the back of the head there protruded and hung down over the back of the neck a large mass that during labor, had an encysted feel; it had burst, though covered by healthy integument. Within this mass were found the protruding membranes, mostly resembling the pia mater, and with them a great quantity of a pulverulent substance, deeply stained with blood, and as fine as the finest sand; but there was no cerebral substance outside of the cranial cavity.

The organs of the thorax and abdomen were well formed, excepting the renal capsules, of which no trace could be found.

TAYLOR ON SYPHILIS.[1]

We welcome this evidence of original work on the part of an American specialist, and upon a subject which our foreign brothers would gladly regard as native American. In the work before us the well-known author has considered the morbid conditions resulting both from congenital and from acquired syphilis in children, a distinction most necessary to be made and one which has been left hitherto nearly undescribed. The structure investigated is that which even in adults has never been thoroughly examined in respect to the modifications to which it may be subjected by the action of the syphilitic virus, and it is chiefly to the morbid anatomist that we owe the knowledge which we possess upon this point. Taylor gives us, however, and for the first time, the clinical history of these lesions according to the method of practical observation and study, and considers them, moreover, not, as in the adult, as the ruined condition of that which had been perfect, but as the necessarily imperfect development of nascent infected germs.

The author holds, in opposition to Diday, Vidal, and others, that lesions of the osseous system in children due undoubtedly to syphilis are by no means rare, and that while it is true that they present strong points of resemblance to the bone lesions of rickets, it by no means follows that scrofula can be considered as their single progenitor. In support of his views he quotes Wegner, Waldeyer, Köbner, and Ranvier. He considers that these lesions may be engrafted upon the bones of the child to a greater or less degree during the whole period of their development, an important point pathologically speaking.

He next gives the personal history of twelve cases occurring under his own observation. The details are given at length, the descriptions are minute, and in two cases there is shown quite clearly a complication of great interest, namely, the separation of the epiphyses from the diaphyses, and these two ses are probably the only ones on record where the survival of the patient abled not only the course of the lesion but its ultimate results to be studied.

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[1] *Syphilitic Lesions of the Osseous System in Infants and Young Children.* By R. W. OR, M. D., Surgeon to the New York Dispensary, Department of Venereal and Skin es, Physician to Charity Hospital, New York. New York: Wm. Wood & Co.

To the history of cases under direct observation succeeds a *résumé* of some irty-five cases observed by other writers at various times and in different ices. Many of these are imperfect in detail, often lacking very essential rticulars in their history, and chiefly valuable from calling attention to bone- ellings.

These enlargements are next considered in their development, course, and tribution upon each and all of the bones of the whole system, and we would l especial attention to the valuable chapter upon the separation of the iphyses from the diaphyses which may occur in any of the long bones of philitic children. This separation is fully dwelt upon under its two varie- s: that arising from simple causes, and that due to the syphilitic virus.

A good description follows of the symptoms induced by the osseous swell- gs, the periostitis of infantile hereditary syphilis, the effects of the osseous ions upon the ultimate structure and shape of the bones, the period of their currence, the intensity of the disease where they are observed, and the con- ion of the disease in the mothers of those infants in whom such osseous ions make their appearance.

Upon the question whether similar osseous lesions may be developed in ac- red infantile syphilis, Taylor gives affirmative testimony showing that these ections do not proceed solely from congenital causes, but may be due also to malign influence of a virus by which the constitution has become infected any period of the growth and development of the bony skeleton.

The field of pathological anatomy has been carefully reviewed; original strations are given and the views and observations of other writers cited. e sections on diagnosis and treatment are quite complete, the former neces- ily involving the description of some other morbid conditions somewhat akin, least in their clinical aspects, to the lesions under discussion, and requiring, refore, a careful differential diagnosis. In regard to rhachitis, especially, ch important matter is given appertaining to its relations and diagnosis.

Taylor insists especially upon the necessity of a proper and well-regulated rcurial treatment of the pregnant mother, and its beneficial results in pre- nting the future development of syphilitic lesions in her child. For the ld, as treatment for osseous lesions, he approves of the treatment by mer- y and iodide of potassium combined, regarding the pathological condition rightly comparable with that of the late, adult, acquired syphilis in which mmy-tumor proliferation has not yet appeared. The mother should con- ue to give the child the breast, to obviate, if possible, any tendency to en- itis. Medication of the child through the mother, Taylor considers totally ffectual. For the separation of the epiphyses, the indications are the same in fracture, and immobility of the parts is to be secured by an accurately ing splint or a bandage, preferably of adhesive plaster.

The volume ends with a brief but full consideration of the swellings which ur later in the life of those hereditarily syphilitic, at the junction of the physes with the epiphyses, and an interesting account of the course of the mmous osseous lesions of older children contrasted with the lesions of infancy.

Attention is called also to the prevalence of error in the etiology rather than the diagnosis of these lesions, certain non-specific lesions of the bones being sometimes regarded as syphilitic, the unjust inference being drawn that "without a syphilitic taint in the child's system the lesiôn could not have occurred."

Dr. Taylor has succeeded in presenting to the medical profession a treatise at once original, important, and comprehensive, clear in style and accurate in its depiction of morphological changes, valuable scientifically and at least as valuable clinico-practically.

The appearance of the volume is neat and elegant, the type is clear, and the paper, made in this city, heavy and of admirable quality and gloss, the polish indeed being such as to cause a reflection somewhat trying to weak eyes, a "painting of the lily" which is becoming far too prevalent, Emerson's Parnassus, for example, being nearly illegible in certain lights, though very clearly printed. E. W., Jr.

WILDER ON THE REPRODUCTIVE FUNCTION.[1]

Never have we taken up a book for review with so deep a feeling of regret as we now experience — regret that the book has been written, that it is our duty to speak our mind concerning it, and above all, that the author, a rising man of industry, ability, and reputation, should have done himself an injury such as the most malignant enemy could not have inflicted. The second part of the title indicates far more truly than the first the nature of the book. The anatomy and physiology of the organs employed in fecundation are minutely discussed, as well as several social and pathological questions which till now have been brought to the notice of the public only by a species of literature which in the eye of the law is held to defile even the mails. To put such a book into the hands of young boys and of innocent girls is unutterably disgusting. The author clearly feels himself upon the defensive: the defiant motto, "*Honi soit qui mal y pense,*" the hitherto unblemished list of the author's publications, the attempt to escape responsibility by quotations, the answers to objections, all show the anxiety he must have suffered. His main argument is that to put the generative function before the young simply as a difficult physiological problem will rob it of the mystery which now makes it so dangerous a question, and will make misdirected passion yield to calm scientific reason. We do not question that the author is sincere, but we cannot excuse his presumption in thus pursuing his opinion in the face of what he must have known is the sentiment of the profession; in the face of what he must have known is usually held as common-sense.

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[1] *What Young People Should Know. The Reproductive Function in Man and the Lower Animals.* By Burt G. Wilder, M. D. Boston: Estes and Lauriat. 1875.

THE AMERICAN MEDICAL ASSOCIATION.

Now that the meeting is well over, and the results made public, our thoughts turally recur to our position in regard to the association. As is well known, r opinion of it has of late years been far from a high one. We have main- ned that, though originally good, it had greatly degenerated, and no longer rly represented the profession of America. We have nothing to retract as as the past is concerned, but we are glad to embrace this opportunity to dify our views, and to look forward more hopefully to the future. The late eting may, on the whole, be called a success. The public proceedings were nified, and there was an obvious attempt at reform in many respects. The lresses of the chairmen of the sections were good, but the private work in sections does not appear to have been remarkable. Some members do t seem to have appreciated the seriousness of the occasion, and to have ught these smaller meetings fitting for the display of levity that the dignity the general ones happily repressed. We could relate some anecdotes that uld amuse rather than edify our readers or add to the credit of the per- mers. This is much to be regretted, for it is in the sections that the solid rk should be done. The chairmen and secretaries should be prominent for ir attainments in the fields of medicine they represent. The appointments these officers for next year are not so good as we had expected; at least important department is very weakly represented, and but few of the nes are widely known.

Dr. Bowditch's address as chairman of the committee on hygiene is the first p in a great undertaking. He urges the establishment of a board of health every State, with the view of ultimately forming a national council of lth. The speaker recognized that the work must be done by degrees, and ed for the present only at inducing the association to use its influence in matter.

There was one incident, the news of which did not reach us in time for pub- tion last week, that we cannot pass over in silence. We refer to the mani- ations of friendly spirit between the representatives of different parts of the ntry. Dr. Bowditch, in acknowledging the hospitality of the city, alluded he pleasure it had given him to meet gentlemen from the South, and spoke the Confederate dead in a way that excited the greatest emotion. Dr. ldwin, of Alabama, and delegates from many other States, replied in the e spirit, and finally, when Professor Gross, who was greatly moved, spoke he same strain the enthusiasm was intense. Such a conclusion as this may ne for what shortcomings the meeting presented, but we look for further rovement.

THE SOCIAL SCIENCE ASSOCIATION.

THE recent meeting at Detroit brought out as usual many medical papers, l as usual most of the writers came from this neighborhood. Dr. David F. coln read an exhaustive paper on the Relations of School Life to the Nervis System, showing how the former might benefit the latter, but frequently in- ires it. The paper elicited considerable discussion. The superintendent of chools at Detroit questioned the amount of evil that is alleged to come from he ventilation, or rather the want of ventilation, of school-rooms, as in point o fact they were superior in this respect to the homes of most of the scholars. A paper by Dr. J. J. Putnam was presented, advocating the introduction of gymnastics into schools. Dr. Nathan Allen discussed state medicine and its relation t insanity and public charity. The reports of some charitable institutions wer considered at length, and Dr. Hoyt, of New York, proposed that large farm be made to take the place of insane asylums. Mr. George S. Hale, of Bosto read a paper on medical charities, which opens the very interesting and impo tant question of the extent to which it is proper to give gratuitous relief. This is a very difficult problem that it would be well to solve as soon as possible, but which must be very carefully dealt with. The association is doing much conscientious and valuable work, which doubtless will bear fruit in time.

MEDICAL NOTES.

— The act for the laying out of public parks in or near Boston has received the signature of the governor. It provides for the appointment by the mayor of Boston, with the approval of the city council, of three park commissioners for the terms of two, three, and four years from May 1, 1875, and the annual appointment, after 1876, of one commissioner for the term of three years. They are removable by the concurrent vote of two thirds of each branch of the city council, and are to receive such compensation as the city council shall determine. The board will have the power to locate within the city one or more public parks, and for the purpose to take from time to time, by purchase or otherwise, such lands as they shall deem advisable, or to take bonds for the conveyance of lands, and will have the general improvement and control of such parks when established; but it is provided that no land shall be taken or other thing done involving an expenditure of money until an appropriation sufficient to cover the estimated expense thereof has been made by a vote of two thirds of each branch of the city council.

The act provides also for the assessment of a betterment upon all lands receiving benefit by the laying out of a park, beyond the general advantages to all real estate in the city.

The mayor of any city and the selectmen of any town adjoining the city Boston are given like authority to appoint park commissioners, with si lar powers, for the establishing of public parks within their respective city town.

The act will not take full effect unless accepted by a majority of the l voters of the city of Boston present and voting at a special election to be on the second Wednesday of June next.

— Dr. Rose, of New York, calls attention, in the *Medical Record* of Ma to Zeissl's method of introducing liquids into the male bladder without th of the catheter. The plan is to fit the point of an irrigator into the mouth of the urethra, while the patient is placed on his back, with raised nates, the penis being stretched along the abdominal walls. By the employment of this method Dr. Rose was enabled to inject the bladder with a solution of tannin, having introduced a glass tube into the urethra and connected it with a fountain syringe, which was raised to the height of four feet. Previous attempts to wash out the bladder by means of a catheter had been unsatisfactory.

— Suspicions having been entertained that at a recent examination in arts held by the Society of Apothecaries, in London, a certificate had been fraudulently obtained by a person who was not present himself on either of the two days of the examination, but was represented by some one else, who answered the examination papers for him, the secretary to the court of examiners demanded that the certificate thus improperly obtained should be delivered up, so that it might be canceled. The demand was at once complied with, and the secretary writes to the *Lancet* to inform the members of the medical profession in general, and the students in particular, of the facts of the case. The editor of the *Lancet* asks why legal proceedings have not been instituted.

— Professor Charcot maintains, in an article in *L'Union Médicale*, that in most of the crises of hysteria there exists an aura having its point of departure in one of the ovaries, and sometimes in both. This having been determined, it suffices, in order to suspend almost instantaneously the attack, to exercise strong pressure upon the ovary which is the seat of the aura. In a recent conference that was held at the Salpêtrière, M. Charcot showed the efficacy of this procedure in the case of a patient afflicted with hystero-epilepsy. In very many seizures he has suspended at will the attack by compressing the left ovary. The attack is resumed when pressure is removed. In order to exercise compression sufficiently long to entirely avert the attack, M. Charcot employed at the Salpêtrière a kind of tourniquet. Digital compression is made exactly as when one would compress the iliac artery. The fingers are pushed behind the pubes until the pulsation of the artery is felt beneath them.

— The *Philadelphia Medical Times* states that the forthcoming volumes of he Medical and Surgical History of the War of the Rebellion will excel in value their predecessors. The report on cholera, by Dr. McClellan, bids fair o be one of the most remarkable and exhaustive memoirs of the kind ever ublished. Dr. Billings is building up an immense medical library. It now eceives all the medical journals of the world, with the exception of a few obcure periodicals published in Greece, Spain, and Mexico. All original papers re catalogued, not by their titles, but by their actual subjects. The labor inolved is enormous, and with the small number of assistants allowed by the ands a long time must elapse before the catalogue is completed.

— The new School of Medicine in Paris in its reconstruction gives opporunity for an enlargement rendered necessary by the constantly increasing umber of the students who attend the courses of the school. To-day there re more than four thousand five hundred pupils. The plan as prepared by he architect, M. Ginain, divides the work into two sections. The first section consists of buildings designed for general studies, and for the administration.

The new structures, being joined to the ancient buildings of the school, which were completed in 1786, permit of the preservation of the grand amphitheatre already existing, of the amphitheatres and laboratories of chemistry, of the halls for collections, of a vast library, of offices, and of the apartments for the dean. The second section, designed for the prosecution of practical studies, comprises the buildings of the hospital of clinics in the ancient convent of the Franciscans, and the apartments at present appropriated for pavilions for dissection. The principal divisions are a great amphitheatre for the courses of the faculty, various halls for free instruction, large physiological laboratories, a court for animals, aquariums, and apartments for practical anatomy (halls for dissection, laboratories of histology, of pathological chemistry, etc.); in addition, a museum of pathological anatomy within the ancient refectory of the Franciscans, and, finally, special laboratories for the professors, and various apartments. The entire expense of these works will be scarcely less than nine millions of francs.

— In regard to the medical department of the University of California, to which attention has been called of late in discussions on medical education, we learn that the school was formerly a private affair, one of the two medical schools in San Francisco; its head man was without high standing in the profession, but possessed of a big fortune and a great reputation in the country. His aim was to perpetuate his name, and he therefore offered his school to the university with the buildings, etc., on condition that it should be called its medical department, naming the building "Toland Hall." The regents soon found that they had received an elephant. The old faculty insisted on becoming the new one, and in it were two professors, one of whom could not write two words correctly; the other, an American, always declared he had a French diploma until some began to doubt it, and he then showed a German diploma which ultimately proved to be counterfeit. The *San Francisco News Letter* got scent of the scandal and brought it out in its true light, writing to the German university and finding out that no one of that name (Dean) had ever graduated there, and then publishing the letters in its issue. We regret to learn also that there are men in the State and city medical societies who have no diplomas and yet are tolerated and admired.

LETTER FROM PARIS.

Messrs. Editors, — I have been rather tardy in replying to your kind invitation to write you something of professional affairs on this side of the ocean. A very rough and long passage, and the severe sickness of my confrère, my fellow-missionary, as our facetious C. E. S. entitled him, is my excuse. Yet my friend's sickness, which has delayed him in Liverpool up to the present time, was the occasion of many good results. In the first place, it gives peak of the kindness shown to us in most trying circumstances by Kay, of the Cunard steamship Hecla, and by Dr. Hill, of the same ship; and occasion to remember Mr. Harrison, surgeon to the Liverpool Infirmary, for his entire devotion.

American medical men neglect Liverpool, and hasten to London by the first train. Yet the museum of the Liverpool Infirmary contains things not to be seen elsewhere, and the morality of a morbid anatomist must needs be of stern stuff, if he were trusted there alone. First, there is a skull showing bony hypertrophy to such a degree, and of so curious form, that it looks as though it was the work of coral insects, which had attempted sculpture on a grand scale. Skull, face, and lower jaw are magnified to perhaps three or four times the natural size, and almost exactly resemble coral. A portrait of the man whilst living is near by. I have never seen the equal of this specimen in any cabinet in the world. But perhaps the wonder of the museum is a specimen shown me with evident pride by Dr. Waters, the author of a well-known work on Diseases of the Lungs. It is that of a clot effused into the substance of the restiform body, lacerating it in all directions, and yet during the man's life, some twelve hours after entrance to the hospital, there was entire preservation of sensibility! The case was carefully watched by Dr. Waters, who suspected that some lesion of great interest would be found. By the kindness of Dr. Mitchell Banks, I saw something worthy of imitation by us. Besides the physiological laboratory, with its abundance of microscopes, there was a series of sections of the brain, showing each anatomical point worthy of remembrance, inclosed in cells, I may call them; they are colored blue, I believe, to contrast sharply with the white preparations; they are sunk into the wood of the cases and covered with glass. Thus they are ever ready for the student to consult.

Before I leave Liverpool, let me say that my sick friend had the very efficient services of a trained nurse from the Liverpool Nurses' Training Institution, a most excellent institution, well worthy of a visit by those among us who are interested in this subject.

From Liverpool I went to Manchester to see the Manchester Infirmary, attracted thither by the fame of Mr. Edward Lund, whose admirable book entitled "Five Years' Work in the Manchester Infirmary" I had read with great delight at home; the pleasure was increased by the perusal of his papers in the volume published by the Liverpool and Manchester Association, a work published yearly, and one that all your Boston clubs and libraries ought to apply for to Mr. Reginald Harrison, F. R. C. S. E., Liverpool. Manchester, I believe, is always smoky. The sun hangs in the sky like a copper ball, rather than a resplendent luminary. At the infirmary, a fine, large building, standing in an open square, I was most hospitably welcomed by Mr. Lund, who was waiting to receive me. Mr. Lund is an elderly gentleman of most kindly and benevolent face, quick and nimble, one who can work whilst talking; a most thorough surgeon, no man can doubt after seeing him for ten minutes in a ward. Cheering, pleasant words for patients, plain practical teaching for his dressers, mixed with his bright, ready fun. Blessed are they whose lot it is to be cured or taught in the Manchester Infirmary. An ardent and early disciple of Lister, Mr. Lund carries out the antiseptic doctrine to its full extent; and whether one believes Pasteur's theory or not, one cannot visit with Mr. Lund and not be impressed by the excellent results he obtains, or after seeing him dress, which he does with his own hands and with great rapidity.

Mr. Lund showed me a resection, or rather excision, of the elbow-joint where there was absolutely no offensive odor perceptible; also a Syme's amputation; and a case of ununited fracture of the thigh in which he had shortened the fragments, and had united them by long screws. Here there was no offensive odor or pus. Mr. Lund, who is a most ingenious man, told me that in his operations for ununited fracture he had found a watch-maker's broach to be much better for drilling the holes than the Archimedean drill used by us. After the hospital visit I went with Mr. Lund to his office, where he showed me his famous specimen of a table-knife which had been swallowed by a lady, and afterwards, many months I think, passed through the abdominal wall near the umbilicus. Mr. Lund is famous among other things for his removal of the tarsal bones, astragalus and os calcis; and his success in these operations has been marked. On one occasion he removed both astragali for great deformity in club-foot. He attributes his celerity and success in these cases to the use of his astragalus hook, as he calls it, a strong hook with a cutting edge. This he passes under the ligaments, and after cutting with the edge uses the hook as a lever. I shall return to this subject, apropos of some attempt recently made here for removal of the os calcis. Before I left Mr. Lund, he also showed me two cutting hooks, which he had used in a case of backward dislocation of the knee from disease, for dividing subcutaneously the crucial ligaments. The case was successful. I shall not soon forget Manchester or Edward Lund.

Leaving Liverpool, I came to London, and although on the 20th of March the fields were quite green, and young lambs were plentifully sprinkled over the pastures, the weather in London was so cold that I was glad to hasten on to Paris. Here there had been ice but the day before in the basins of the fountains, for the spring is exceedingly backward. At the present date the chestnut-trees are but just bursting into leaf. Warm days and cold nights are the "ordre du jour" here, and colds and coughs abound. Coming to professional matters, we have been for the last week or two in an unsettled and very unsatisfactory state. Easter had come, and for the week succeeding it nothing was doing at the hospital or at the school. The festival of "les paques" and "nous sommes en vacances" was the continual cry; but we are now going on once more. The pupils are passing their examinations; offers to print theses are hung out of every library door, for a consideration, no doubt. Professors look fagged out, and mention to you, with an air of disgust, that if anything in the world is more tiresome than another, it is being condemned to read theses.

Figaro, always bright and amusing, told the other morning a good story of examinations. A student had failed in everything. Botany alone remained. The kindly professor took a specimen of the plant tobacco, and asked what it was. The student looked at it with lack-lustre eye, and knew it not. "Something you take many times a day," said the professor gently. "I have it," shouted the student, "it 's absinthe." Perhaps I had better stop here, and next week take up the work again, refreshed by this excellent stimulant.

W. C. B. Fifield.

Paris, *April* 10, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

The following is a bulletin of the diseases prevalent in Massachusetts during the week ending May 15, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

Bronchitis, rheumatism, and pneumonia are prevalent in all parts of the State.

In the Connecticut Valley there is an increase of measles and of whooping-cough. Huntington has a case of small-pox.

In the Midland section there is more diphtheria than at any time since January 1st. Diarrhœa and croup have also increased. Cases of "German measles" are reported.

In the Northeastern counties, whooping-cough and typhoid fever have increased. Measles is again declining; in some parts, as in Gloucester, it leaves behind it an epidemic of "German measles."

The reports from the Metropolitan section contain little that is noteworthy. Rheumatism is the prevailing disease. Influenza and measles, with "German measles," maintain their hold, but are diminishing.

In the Southeastern counties there is a satisfactory absence of acute diseases, except those which are mentioned as prevailing in the State at large.

During the week bronchitis, influenza, and measles have diminished; all the other diseases have increased somewhat or remain stationary.

The type of the prevailing affections is almost uniformly mild.

F. W. Draper, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MAY 8, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	578	29
Philadelphia	775,000	365	24
Brooklyn	450,000	201	23
Boston	350,000	148	22
Providence	100,000	32	17
Worcester	50,000	20	21
Lowell	50,000	26	27
Cambridge	44,000	20	24
Fall River	34,200	16	24
Lawrence	33,000	21	34
Springfield	33,000	9	14
Lynn	28,000	12	22
Salem	26,000	12	24

Annual Election of District Medical Society Officers. — Officers for the ensuing year have been chosen in the District Societies as follows: —

Berkshire. — President, Dr. J. L. Miller; Vice-President, Dr. C. D. Mills; Secretary, Dr. J. F. A. Adams; Treasurer, Dr. W. M. Mercer; Librarian, Dr. M. E. Jones; Trial Commissioner, Dr. Abner M. Smith; Councillors, Drs. J. F. A. Adams, Clarkson T. Collins, Andrew M. Smith, Abner M. Smith, S. M. Reynolds, H. L. Sabin; Censors, Drs. C. T. Collins, Abner M. Smith, F. K. Paddock, M. E. Jones, D. M. Wilcox.

Franklin. — President, Dr. R. C. Ward; Vice-President, Dr. F. J. Canedy; Secretary, Treasurer, and Librarian, Dr. A. C. Walker; Trial Commissioner, Dr. A. C. Deane; Councillors, Drs. A. C. Deane, E. C. Coy, A. C. Walker, J. W. D. Osgood, E. Barton; Censors, Drs. F. J. Canedy, W. H. Hills, C. E. Severance, E. S. Weston, C. L. Fisk, Jr.

Bristol North. — President, Dr. C. Howe; Vice-President, Dr. E. J. Bassett; Secretary and Treasurer, Dr. A. S. Deane; Librarian, Dr. H. H. Sproat; Trial Commissioner, Dr. H. C. Bullard; Councillors, Drs. J. R. Bronson, S. D. Presbrey, N. Paige, J. Murphy; Censors, Drs. W. W. Godding, G. L. Ellis, N. M. Ransom, J. Murphy, S. D. Presbrey.

Worcester North. — President, Dr. Ira Russell; Vice-President, Dr. G. Jewett; Secretary and Librarian, Dr. G. D. Colony; Treasurer, Dr. A. Miller; Trial Commissioner, Dr. C. C. Field; Councillors, Drs. Ira Russell, G. D. Colony, George Jewett, B. H. Hartwell; Censors, Drs. E. J. Sawyer, A. Miller, C. C. Field, J. M. Blood, F. W. Russell.

Hampden. — President, Dr. W. J. Sawin; Vice-President, Dr. H. G. Stickney; Secretary, Treasurer, and Librarian, Dr. G. S. Stebbins; Trial Commissioner, Dr. P. LeB. Stickney; Councillors, Drs. T. L. Chapman, W. W. Gardner, E. M. Pease, C. Bell, S. D. Brooks; Censors, Drs. D. Clark, C. P. Kemp, L. S. Brooks, H. C. Belden, L. H. Humeston.

Books and Pamphlets Received. — The Elements of Embryology. By M. Foster, M. D., F. R. S., and F. M. Balfour, B. A. London: Macmillan & Co. 1874.

Eating for Strength. By M. L. Holbrook, M. D. New York: Wood and Holbrook. 1875.

Health. A Handbook for Households and Schools. By Edward Smith, M. D., F. R. S. New York: D. Appleton & Co. 1875.

What Young People should Know. The Reproductive Function in Man and the Lower Animals. By Burt G. Wilder. Boston: Estes and Lauriat. 1875.

Ichthyosis of the Tongue and Vulva. By R. F. Weir, M. D. (Reprinted from the New York Medical Journal, March, 1875.)

Caution. — William Wood & Co. publish a notice warning all persons who may happen to obtain odd volumes of Ziemssen's Cyclopædia that the publishers do not engage to complete such sets, but expect subscriptions for the whole.

The Boston Society of the Medical Sciences. — The next regular meeting will be held on Tuesday evening next, May 25th, at Dr. Robert Amory's.

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DIVISION OF THE TENDO ACHILLIS IN CERTAIN INJURIES ABOUT THE ANKLE.

BY GEORGE W. GAY, M. D.,
Surgeon to the Boston City Hospital.

Mr. C., a laborer, aged forty-five, fell from a step two or three feet high, striking on the pavement upon his left side. He was brought immediately to the hospital. On examination he was found to have a fracture of the left fibula, an inch and a half from its lower extremity. The symptoms were crepitus, increased mobility, and local tenderness. The foot was dislocated on the tibia backwards and outwards, as was indicated by an undue prominence of the heel behind, of the lower end of the tibia in front, and by inability to flex the foot to a right angle. The internal lateral ligament was partially ruptured, giving a deformity not unlike that seen in equino-valgus.

The leg was placed in a fracture-box, but all efforts to remove either the lateral or the antero-posterior deformity were unsuccessful. On the fifth day the patient was etherized, and renewed but unsuccessful efforts were made to remove the deformity. The tendo Achillis was now divided, and the foot easily restored to its natural position. The leg was replaced in the fracture-box; the foot was kept at a right angle to the leg by means of the foot-piece, and the lateral deformity removed by side pads.

The subsequent treatment gave very little trouble to either patient or surgeon. The straps and pads required adjusting only once in two or three days, instead of two or three times a day, as before the tenotomy. The patient suffered no pain whatever after the operation.

He was discharged five weeks after the injury. He could walk at this time without a cane, and had only a slight limp. The foot was in its normal position, the tendon firmly united; the motion of the ankle-joint was fair, and rapidly improving. There was no pointing of the toes to prevent him from placing his foot directly under him with the heel upon the ground, and taking a natural step.

Four months after the accident the patient reported himself well. He could walk as well as ever, and said the injured limb was nearly as strong as the other. There was neither swelling nor deformity. Recovery was complete.

Fractures at or near the ankle are apt to be followed by impaired motion, which may last for weeks or even months after the original lesion of bones and ligaments is repaired. The same is also true of dislocations of the foot, whether accompanied by fracture of the bones of the leg or not.

In all of these cases of injury in the vicinity of the ankle-joint there is a marked tendency in the foot to point downwards; and unless this tendency be corrected in season, the convalescence may be long and tedious. This is due to the fact that, as the patient's foot is anchylosed at an obtuse angle, he cannot put it under him parallel with the other, when standing on the sound limb. On the contrary, he carries or pushes it along in front, bearing little or no weight upon it, until the impairment of motion is so far removed as to allow flexion of the foot to a right angle with the leg. It is only when the foot is in this position that the patient can place his heel squarely upon the ground, opposite the other, and take a natural step. He cannot do this when the foot is fixed in an extended position.

If care be taken during the treatment of these cases to keep the foot flexed at a right angle, when the patient gets able to stand on the well leg, he can swing the other under him, the foot clearing the ground without any abduction. The heel can be placed in its natural position upon the floor, so that all parts of the foot shall bear their due share of the weight. The patient will get upon his feet sooner, and in most cases walk more easily than he would be able to do were the foot not in this position. The exercise in walking takes the place of passive motion, and is much more effectual in removing the impaired motion of the articulation.

To retain the foot in this flexed position is not infrequently a difficult matter. It requires a constant and in many cases a considerable force, to overcome the tendency of the foot to point downwards. Division of the tendo Achillis allows the foot to be placed in its normal position and easily kept there. This is a safe, easy, and effectual procedure. The subsequent treatment is more comfortable to the patient, and easier for the surgeon. We have known of its being done in several cases of fracture or dislocation near or at the ankle, and with good results in every instance. Mr. Bryant recommends the operation in these words: "When the fracture (of tibia and fibula) is close to the ankle-joint, and any difficulty is experienced in keeping the broken bones in position, from the spasmodic action of the tendo Achillis, the tendon should be divided this simple operation at once allowing the surgeon to adjust the par with admirable facility, and rendering the retentive apparatus of r value, while it also allows natural processes of repair to go on unint ruptedly, the divided tendon and broken bones undergoing repair together without a drawback."[1]

There is no reason to fear a non-union of the divided tendon, for an ununited tendo Achillis is almost an unheard-of event. Gross never saw nor heard of a case. William Adams[2] never saw but one case, and in that the tendon had been cut immediately behind the inner malleolus, a point which ought never to be selected for the operation.

From the evidence we have been able to obtain, it would seem that in all cases of tibio-tarsal dislocation, and of fracture of tibia and fibula in the vicinity of the ankle, when the deformity cannot be readily removed, and the parts kept in their normal position, division of the tendo Achillis is a safe and justifiable operation. The injured parts can thereby be kept in a better position, the treatment is less irksome to the patient and the surgeon, the tendon heals as soon as the original lesion, and the patient walks sooner, and with less difficulty, being able to get upon his feet at the earliest possible moment. He recovers with as good a limb, and in many cases has a shorter and more comfortable convalescence.

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REMOVAL OF THE OS COCCYGIS FOR COCCYODYNIA.[3]

[REPORTED BY J. C. IRISH, M. D., OF LOWELL.]

Miss C., forty-four years old, an unmarried seamstress, at the age of fifteen received a fall, whose force came upon the coccyx. The injury was immediately attended in the vicinity of the bone with great pain and soreness, which, however, after a few weeks measurably though not entirely subsided. Four years afterwards, while engaged in her avocation, she began to suffer from neuralgia affecting all the pelvic organs but more especially the anus and rectum. The sitting posture greatly aggravated the pain, as did any movements calling into exercise the muscles attached to the coccyx. Defecation was attended with extreme suffering. Menstruation was regular and normal, except that it was attended with severe neuralgia, referred mainly to the rectum. The patient suffered constantly from pain and tenderness, involving all the pelvic viscera. The several physicians under whose care the patient had placed herself could afford her merely slight and temporary relief, although all the ordinary remedies for neuralgia received a thorough trial.

At the time of examination by Dr. Burnham, January 23, 1875, he found extreme tenderness over the coccyx, the two lower segments of the bone displaced and directed anteriorly at a right angle to the remaining portion, and pressing upon the rectum. He also found retroversion of the uterus. The patient was suffering constantly from severe neuralgic pain, which was greatly increased by sitting or walking. Being informed that nothing but surgical interference would probably afford her any permanent relief, she readily consented to any operation that might be deemed necessary.

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[1] Practice of Surgery, page 873.

[2] Club-Foot, page 37.

[3] Under the care of Walter Burnham, M. D., of Lowell.

January 26th. The patient having been placed on her right side and etherized, Dr. Burnham made an incision two inches in length along the median line, and carefully dissected off the attachments of muscles and ligaments, carrying the knife in close proximity to the bone. This dissection was rendered somewhat tedious from the anterior displacement of the terminal segments; next, the lower portion of the bone was removed with the bone-forceps; lastly, all the remaining muscular attachments as far as the cornua of the coccyx were detached with the scissors. The hæmorrhage was very slight, no vessel of sufficient size to require ligation being severed. The wound was dressed with a compress wet in carbolic acid. During the forty-eight hours following the operation, the patient suffered severe pain, which after that time gradually and entirely subsided. For two weeks the discharge from the wound was very copious, but six weeks after the operation it had entirely ceased. The bowels were kept quiet during the first six days, by opiates, and after that time the patient had perfect control of the sphincter ani.

The result has been an entire cure of the coccyodynia, with a most marked improvement in the general health of the patient. No cause for the retroversion was apparent, unless it were due to her general weakness and consequent laxity of the uterine ligaments; possibly, also, the displacement of the coccyx, by relaxing the levatores ani and sphincter vaginæ, thus weakening the posterior uterine supports, may have contributed considerably to the production of this displacement of the uterus.

This operation, first suggested and performed by Dr. J. C. Nott, has been but rarely resorted to, though coccyodynia is by no means an infrequent affection. In all those cases, so far as I know, in which the two last segments of the bone have been removed, the cure has been complete and permanent. Removal of the whole or the larger portion of the bone seems to me preferable to subcutaneous division of the attachments, because the former procedure precludes all chance of a return of the disease and but slightly increases the gravity of the operation, while in cases of displacement it is much more easily performed than the latter.

URÆMIC CONVULSIONS TREATED BY MORPHIA.

BY FRED. E. POTTER, M. D., SURG. U. S. N.

MR. D., aged sixty-two, for the past year has been suffering from Bright's disease. On the 31st of January, 1874, he was seized with uræmic onvulsions, each fit lasting from five to ten minutes, with from ten to wenty minutes of consciousness intervening; the consciousness during he intervals gradually decreased, until he lay between the attacks in a leep stupor, breathing stertorously. As all means tried for relief proved navailing, and as the patient was evidently failing rapidly, injected nto the cellular tissue of the fore-arm, in the midst of a convulsion, twelve ninims of Magendie's solution of morphia. For four hours following, the onvulsions did not recur; he then had two light attacks, after which here was no return. In ten days he had so far recovered as to be lressed; he had partial paralysis of the right side and hemiopia, the eft half of each retina being impaired.

During the past year the patient has had no return of convulsions; e complains of muscular weakness in the right upper extremity, with ensation of numbness of the right half of the body. The hemiopia has ut slightly improved.

The result in this case goes far to show that the danger to be appreended from the use of morphia in uræmic convulsions has been much xaggerated. The effects of opium upon the cerebral circulation wherey the comatose condition arising from a poisonous dose of that medicine produced, in all probability differ widely from those which are caused y the non-elimination of the effete matter which in Bright's disease ives rise to uræmic convulsions; and though there is a strong analogy etween the effects of the drug and of the poison, the above case tends show the groundlessness of the fear that by administering opium we all add fuel to the fire.

RECENT PROGRESS IN OTOLOGY.[1]

BY J. ORNE GREEN, M.D.

Ultimate Forms of Granulation Tissue in the Ear. — Buck[2] describes e ultimate forms of granulation tissue in the middle ear, when left to elf, as follows: —

" First, it may continue to develop until finally, by its size alone, it eates such alarming symptoms that the destruction of the mass bemes necessary. During the progress of its growth only a portion of e cells — whatever their origin may be — go to build up tissue; the majority are cast off from the surface of the mass in the form of pus. A certain proportion of these masses will be found to possess, at a certain stage of their growth, a covering of skin or of mucous membrane, according to the locality in which they originate. Probably a large proportion of them, however, consist of simple granulation tissue without any covering of skin or mucous membrane.

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[1] Concluded from page 592.

[2] Transactions of the American Otological Society, 1874.

"Second, it may remain for an indefinite period of time in a condition of nearly absolute inactivity, so far as increase in size or apparent change in texture is concerned.

"Third, it may be cast off from its nutrient base by the wasting away of its pedicle.

"Fourth, it may assume one of the following ultimate forms or conditions: (*a*.) It may become covered with skin or mucous membrane, and remain in a quiet condition, like the adjacent normal tissues. The mass then simply represents a localized hypertrophy of the subcutaneous or submucous connective tissue, and in consistence is the same as or a little harder than the normal tissue. (*b*.) It may become covered with skin and then undergo what I might call horny degeneration. (*c*.) The mass may become covered with skin or mucous membrane and its central portions undergo a change into true osseous tissue."

Buck then gives the histories of several cases in which he was able to watch the changes of granulation tissue into some of these forms, and the fourth case is of special interest, as it serves to explain at least one mode of the development of the cutaneous membranes which are sometimes found closing the external meatus. In this case, a ring of granulations was formed around the meatus, the result, probably, of the irritation caused by a prune pit in the passage; and in the course of a month these granulations united into a membrane, which became covered with epidermis and nearly closed the meatus. Fuming nitric acid caused a shriveling of the whole mass, and the meatus was restored to its normal size and condition.

One mode in which the granulations sometimes disappear seems to have been overlooked by Buck, probably accidentally, as it must have been observed, and that is a gradual shriveling of the mass from the subsidence of inflammation around it.

The Accommodative Power of the Ear, and its Disturbances. — Lucæ[1] gives a synopsis of his investigations on the muscles of accommodation in the ear. He claims that the two tympanic muscles, the tensor tympani and the stapedius, form a mechanism by which the ear can accommodate itself, on the one hand, to the deeper or musical notes, and, on the other hand, to the higher notes beyond the musical scale; the accommodation for the musical notes is provided in the tensor tympani muscle; that for the higher or non-musical notes is provided in the stapedius muscle. Lucæ has convinced himself, both by a repetition of Fick's experiments with the manometer, and also by inspection of the membrane in persons who had the power of voluntary contraction of he muscle, that a contraction of the tensor tympani muscle increases he tension of the membrana tympani. Both of those methods show, during contraction of the muscle, a drawing inwards and a consequent increased tension of the membrane; and tests with the lowest notes of the tuning-fork demonstrate that this increased tension produces an improvement in the power of hearing these notes, while a relaxation of the muscle again diminishes this power.

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[1] Berliner klinische Wochenschrift, Nos. 14, 16, and 17, 1874.

Contraction of the stapedius muscle can be caused, at least in some persons, by contraction of the muscles of the face, owing to the fact that the stapedius receives its nerves from the facial; and Lucæ by careful inspection of the membrana tympani has been able to see a decided outward movement and consequent relaxation of the membrane, as the result of contraction of the stapedius. This relaxation of the membrane is proved by experiment to produce a decided diminution in the power of hearing the notes of a tuning-fork.

For testing more accurately the accommodative power of these two muscles, Lucæ has used a series of König's steel rods, and finds that, although somewhat variable in different persons, the tensor tympani increases the power of the notes up to $C^6 = 8192$ vibrations in the second (German scale); $E^6 = 10{,}240$ vibrations is uninfluenced by either the tensor tympani or the stapedius, but $G^6 = 12{,}288$ vibrations, and the notes above this are increased in power by contraction of the stapedius, and diminished, or even completely lost, by contraction of the tensor tympani. The explanation of these phenomena Lucæ finds in the changes of pressure which take place in the labyrinth, the tensor tympani forcing the base of the stapes inwards towards the vestibule, and the stapedius drawing it out from the vestibule. He also finds that during contraction of the tensor a high, sharp, subjective noise is experienced, while contraction of the stapedius produces a low, subjective roaring.

Exact experiments have shown that the consonant sounds, which are so important for understanding speech, correspond with the lower and higher notes of the scale. In diseased ears some will be found that perceive the lower notes best, some that perceive the higher notes best, and these two conditions Lucæ names low-hearing and high-hearng; in testing such ears with whispered words, it is found also that ow-hearing is associated with a diminished perception of the higher consonant-sounds, while high-hearing is associated with a diminished perception of the lower consonant-sounds and the lower vowels.

Abnormal low-hearing is found with rheumatic facial paralysis; abnormal high-hearing where the membrana tympani has been largely destroyed, and specially marked where in addition to this loss both hammer and incus have come away and the stapes only remains. Cases of catarrh of the middle ear offer instances of both high and low hearing. Abnormal low-hearing is generally found in cases of genuine catarrh of the middle ear, with increase of secretion, closure of the Eustachian tube, and abnormal depression of the membrana tympani. Sometimes, however, it is found without increased secretion or change in position of the membrane. All of the cases of low-hearing in catarrh of the middle ear are characterized by one symptom, namely, that the inflation of air increases the hearing distance for both the watch and the voice. Low-hearing is sometimes found in purulent inflammation of the tympanum with or without perforation, and is probably due to an inflammatory retraction of the tensor tympani, or to a secondary inflammation of the inner ear.

Abnormal high-hearing is observed in those cases in which examination shows a perfectly free middle ear with a membrana somewhat drawn in; such cases, after inflation of the middle ear, show an improvement for the watch, but a diminution for the speech, and the prognosis has been heretofore unfavorable.

Lucæ has endeavored to simplify the methods of testing for these two forms of ear-disease, and recommends for testing in low-hearing the tuning-fork C = 128 vibrations, or else a tuning-fork capable of being tuned to different notes by means of sliding weights on its arms. For testing high-hearing, he recommends the sounds of the watch, provided that its ticking is composed of the highest notes, or better still a König's steel rod, G^6 = 12,288 vibrations.

These functional disturbances of the ear, namely, high and low hearing, Lucæ refers in the great majority of cases to disturbances of accommodation, caused by primary or secondary insufficiency of the two tympanic muscles; generally, however, this insufficiency is secondary to some disease of the tympanum.

For general treatment of these cases he advises protection of the ear from noises as far as possible, since the affected ears always show a hyperæsthesia for one or the other class of tones. The local treatment required is that directed to the tympanic disease, which is generally catarrhal inflammation of some form. In this local treatment of low-hearing, the inflation of air into the tympanum is the chief agent, and is proved by experiment to force outwards, not only the membrana tympani, but also the whole chain of ossicles with the stapes. The same effect can also be produced by the removal of air from the meatus by suction. For the inflation of the tympanum Lucæ thinks that a very gentle stream of air through the catheter is better than either Politzer's or Valsalva's method of inflation. For suction on the meatus, he uses a flat air-bag, which can be connected with the meatus by a rubber tube ; for governing the amount of negative pressure used, the air-bag is compressed by a certain weight, from one hundred to two hundred grammes; the rubber tube is then connected with the meatus, and the weights are removed from the bag. This suction is continued for five or ten minutes, and repeated from two to six times a week. By this suction, thus continued for some minutes, the results are better than in cases where it is used only for a moment, as with Sieglé's speculum.

The local treatment in instances of high-hearing is exactly the opposite of that for low-hearing. Here the inflation of the tympanum and negative pressure in the meatus are contra-indicated; but positive pressure in the meatus is in place. This Lucæ applies in the same manner as he does the negative pressure, only reversing the process, thus allowing the weights to force air into the meatus instead of withdrawing it from the meatus.

High-hearing is often found in the cases of sclerosis or hypertrophic nflammation of the middle ear. Of late years several authors, notably Weber-Liel, have referred this disease to an affection of the tympanic muscles, especially the tensor tympani, and have advised tenotomy of he muscle. This operation Lucæ does not approve, as he considers hat the trouble is not a retraction but an insufficiency of the tensor muscle.

The subjective noises which exist with both high and low hearing are found to be of the same character as those produced in the healthy ar by the contraction of the two tympanic muscles, namely, a high ound with insufficiency of the stapedius, a low sound with insufficiency f the tensor tympani, and the positive or negative pressure in the meatus, according to the principles above given, relieves them.

Lucæ's article may be summed up as follows: (1.) Low-hearing, diagosticated from the fact that a low tuning-fork is heard at a greater disance than normal, while the higher notes of a König's rod are not heard o far as normal, which is due to insufficiency of the stapedius muscle, r, in other words, to retraction of the tensor tympani; for treatment egative pressure in the meatus is indicated. (2.) High-hearing, diagosticated from the higher notes of the König's rod being heard farther an normal, while the low notes of the tuning-fork are not heard as r as normal, which is due to insufficiency of the tensor tympani or traction of the stapedius; for treatment positive pressure in the meaus is indicated.

BEARD AND ROCKWELL ON ELECTRICITY.[1]

THE present volume is a second edition, though greatly enlarged and partly remodeled, of an old, well-known, and valued work. The authors have evidently labored long and faithfully in a rather uninviting field, and they deserve thanks for having helped so efficiently to make the profession better acquainted with the clinical value of an agent hitherto too little regarded by practitioners at large.

The first two hundred pages of the book give an excellent digest of the present state of our knowledge as to electro-physics and electro-physiology; although as regards the latter we should have been glad to find a more searching criticism made of the points where the results of experimental and of clinical observations seem at first sight to tally, to act as a check to the tendency of many readers to make too much of apparently sound scientific explanation.

The bulk of the work is given to electro-therapeutics, and is full of excellent practical suggestions and observations. It must be said, however, that its value is much impaired by the presence of many loose or ill-supported statements, which must create a feeling of distrust in the minds of many readers. Thus on page 306, for example, we find, "In severe dyspepsia, accompanied by emaciation, a current is sometimes painfully transmitted from the middle of the back to the stomach *through the solar plexus.*"[2] Such a statement needs further explanation. Again, on page 308, referring to a certain sensitiveness to electricity said to be present in some cases of sick headache and other disorders, along the posterior border of the sterno-mastoid muscle, "in the track of the pneumogastric," the authors say, "We are *disposed to regard* this sensitiveness as due to the pneumogastric more than to the sympathetic." Certainly in a matter so important the mental bias even of an acknowledged authority is worth but little as evidence, and if other evidence exists it is hardly fair to omit it. If a writer on a new subject does not wish his readers to be hypercritical, he must be so himself in advance.

The especial merit of the work consists, however, in the evidence which it gives of the value of electricity as a general tonic, apart from its purely local action, in cases where the nervous system alone is involved, and also in others, as dyspepsia, debility, rheumatism, and, with children, marasmus, whooping-cough, cholera infantum, and chorea. When the current is used for this purpose, it is claimed that all the tissues of the body, so far as possible, in some cases, in others the entire central nervous system, should be brought under its influence (general faradization and central galvanization).

The principal exact evidence that electricity acts favorably upon the general nutrition is given by two sets of experiments of great value so far as they go; one made by the authors, the other by Onimus and Legros, in which a certain number of puppies out of a litter were subjected to daily electrization, with the effect of making them increase in weight more rapidly than the rest.

clinical evidence is voluminous and valuable, and the writers expla

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al *Treatise on the Medical and Surgical Uses of Electricity.* By GEORGE
and A. D. ROCKWELL, M. D. New York: Wm. Wood & Co. 1875.

he failure of others to obtain the same results with themselves by inferring eglect on their part to give sufficient time and patience to the work, and to egard the dose and mode of administration of the remedy with the same care hat is used in studying the action of drugs, where, however, it is no more eeded than here.

The well-known and interesting results obtained in the use of electricity in kin diseases are given here, though the impression which they might produce s lessened by apparently incautious statements, especially as regards the treatnent of eczema by central galvanization, which is said to *show* "a kind of lependence of chronic eczema on the nervous system that had not before been uspected." The assumption is certainly a bold one, and dermatologists may e excused for their unwillingness to acknowledge the conclusiveness of the easoning brought forward to support it.

The number of cases treated in this way is not yet large, and, admitting the orrectness of the observations, other possible explanations besides that given eadily suggest themselves. In the process of central galvanization the nervus system is no more traversed by the current than many other parts, and t may be to its action on them that the favorable results were due. For exmple, certain pathologists, like Murchison, etc., believe that functional diseases f the liver may give rise to eczema by causing incompletely oxidized products f metamorphosis to circulate with the blood; why might not its cure be rought about by galvanization of that organ, such as must occur when one ole of the battery is placed, as the authors direct, at the pit of the stomach?

For want of space we must omit to speak of the many excellent points of he book, the careful and intelligent rules and suggestions, and will only, in pite of its somewhat unnecessary bulk, recommend it heartily to any one who vishes to get a comprehensive view of the subject of which it treats.

More careful reviewing might have corrected a few minor errors, as for exmple, on page 153, where we are told that the irritability of nerves disapears sooner in cold-blooded than in warm-blooded animals; also on page 169, 'flexor" for "flexed," "plateau" for "plantar."

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THE PHILADELPHIA MEDICAL REGISTER.[1]

THE handy little books which of late years are found on so many physicians' ables make an important element in the medical history of the day. The ulky volumes of England and France, and the recent work of Dr. Butler or our own country, are well supplemented by the registers of New York, hiladelphia, and Chicago, and that of our own State. All of them contain a ariety of practical information concerning medical matters which no physiian can afford to do without, and in the more modern form they offer a bioraphical record of the profession which is constantly of service.

[1] *The Philadelphia Medical Register and Directory.* Edited by WILLIAM B. ATKINSON, . D. Philadelphia. 1875.

The Philadelphia Medical Register for 1875 bears evidence of a careful hand in its preparation; it is well and neatly arranged, and gives all needed details concerning hospitals and dispensaries, schools, charitable institutions, and the various professional items which are coming up in every-day life.

We hope that the next number will include the entire State, and in this w[illegible]ay be made of advantage over a wide field.

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SANITARY RELATIONS OF MIGRANTS AND SAILORS.[1]

The two valuable papers whose titles are given below have been reprinted from the volume of the American Public Health Association. They involve important considerations relating to the transportation of immigrants and to the diseases of sailors, subjects with which the able supervising surgeon of the marine hospital service, and his coadjutor in New York, are entirely conversant.

The subject of Dr. Woodworth's paper was suggested by a resolution adopted by the Senate of the United States, directing the Secretary of the Treasury to inquire in reference to the ventilation of immigrant ships, and various matters of kindred interest.

The substitution of steam for sailing vessels in the transportation of emigrants has worked great changes in the accommodation of such passengers. As a direct result the mortality among steerage passengers has been reduced over fifty per cent. in five years, an improvement which is due less to legislation at home than to that of other countries. In fact, our laws are so framed that foreign vessels are scarcely held to any regulation at all. Much, however, remains to be done, and a bill has already been presented to Congress to regulate, in some degree, the carriage of migrant passengers to and from the United States. The larger part of this bill is devoted to details of construction and arrangement of vessels with a view to their use in carrying passengers. Two sections, however, are more important; one recognizes the rights and interests of the citizens of the port in the character and condition of its immigrants, by authorizing boards of health or kindred bodies to prepare sanitary regulations for the migrant passenger service, and the second provides that such rules and regulations shall be submitted to the Secretary of the Treasury for his approval. The subject is an important one, and should meet a hearty support.

Dr. Heber Smith rightly considers the ocean as a great highway of disease, as it is of commerce. Sailors especially, of all the human race, are not brought under proper sanitary observation. The world is indifferent to and neglectful of their welfare, and only cares for them as a means to attain an end. To no class more than to sailors are commercial countries indebted for the propagation and spread of contagious diseases. Dr. Smith does not seek to ameliorate iese evils in his present paper, but devotes himself rather to those diseases i which physical hygiene alone may be of avail.

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[1] *Migrants and Sailors considered in their Relation to the Public Health.* (A.) *Some Defects in the Immigration Service affecting the Sanitary Interests of the Country.* By John M. [illegible]oodworth, M. D. (B.) *Sailors as Propagators of Disease.* By Heber Smith, M. D., [illegible]eon U. S. Marine Hospital Service. Cambridge. 1875.

Dr. Smith illustrates his paper by descriptions of the accommodations furished to their sailors by some ship-owners, showing the manner in which men e stowed away in the least desirable places on board ship, and the ridicuusly inadequate means employed for ventilation of their quarters. Our statte-books fail to offer any provision for the reasonable care of seamen in these articulars. A change in this respect is loudly called for, in the light both of umanity and of national self-interest. B.

BRADLEY'S COMPARATIVE ANATOMY.[1]

THE fact that a third edition is demanded shows that this work has anwered the expectations of the author, who, as he intimates in the preface to he first edition, has endeavored to give the essential facts in as few words as ossible, for the convenience of students preparing for examination.

It is proper to remember, in judging the book, that the author has consistently abored for brevity, and we think that there are no omissions of importance.)n the other hand, we should question the necessity of discussing the so-called ranial vertebræ in detail, and of giving the supposed homologies of the fore nd hind limbs. We rather admire the complacency with which the author ronounces on disputed homologies without any allusion to the existence of ther interpretations.

Though, from its plan, the work is necessarily both meagre and condensed, ve are not surprised that it should have proved a very useful hand-book when upplemented by a good course of lectures.

FOX ON DISEASES OF THE STOMACH.[2]

SINCE the appearance of the first edition of this work it has been recognized s perhaps the most valuable in the English language on the subject of dyspepsia. The third edition now appears, enlarged by the addition of articles n ulcer and cancer of the stomach, making it a complete treatise on the liseases of that organ. Many of our readers are familiar with the former ditions of the work. To those who are not, we would recommend it as the est with which we are acquainted in the English language on this important nd difficult subject. The morbid anatomy of the stomach is well illustrated y numerous engravings. We only regret that so valuable a work should not ave a more presentable dress, the thin-faced type in which the American dition is printed making the reading of it trying to those whose eyes are not trong.

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[1] *Manual of Comparative Anatomy and Physiology.* By S. MESSENGER BRADLEY, F. R. . S. Third Edition. Philadelphia: Lindsay and Blakiston. 1875.

[2] *The Diseases of the Stomach; being the Third Edition of the Diagnosis and Treatment of le Varieties of Dyspepsia.* Revised and Enlarged By WILSON FOX, M. D., F. R. C. P., . R. S., etc. With Illustrations. Philadelphia: Henry C. Lea. 1875.

INSANE HOSPITAL REPORTS.

WHEN each of our insane hospitals shall be furnished with a medical staff adequate to its requirements, when its physicians cease to be overworked and underpaid, when the superintendent is relieved of his duties as farmer, steward, treasurer, supervising architect, and general adviser to all the poor insane in the community at large, hospital reports will gain in interest for the general practitioner.

The report of the Butler Hospital[1] is neat in appearance and typographically perfect, but deals with matters of local importance chiefly. The building of the new Duncan Ward, the noble gift of Alexander Duncan, Esq., of Providence, has no doubt absorbed the attention of all concerned. The Butler Hospital, as every physician should know, was the scene of the prolonged labors of the foremost alienist of America, Dr. Isaac Ray. His successor, Dr. Sawyer, a graduate of the Harvard School of Medicine, has for several years been quietly carrying forward the hospital in its history of usefulness. It is one of the few private hospitals of the country, and ranks with the McLean Asylum in its endowments and accommodations. It is beautifully located, and may be recommended, with the utmost confidence, to the most fastidious class of patients. The inmates number one hundred and twenty-seven at present, and include the few State patients of Rhode Island, who are boarded there in preference to providing a separate hospital for so small a number. There is also a ward for dipsomaniacs, who seek treatment voluntarily, though these patients are received with reluctance. The need of a State asylum to which inebriates shall be committed for a term of months or years is greatly felt here as everywhere.

Of the Minnesota Hospital[2] we can say nothing from personal observation. The number of patients is three hundred and eighty-one, in charge of two physicians only. Males are considerably in excess of females, and it may be the same in the population at large. Forty per cent. of admissions are discharged recovered or improved. Much work seems to have been accomplished by patients on the farm, and in the laundry and sewing-room.

Of the causes of insanity, we have here a list of the usual kind, made up from the answers on the certificates filled out by chance physicians, or at dictation of friends whose ideas on the subject are limited to the latest source of excitement or vagary of the patient's mind. Of six hundred and eighty-one cases, where any cause is assigned, two hundred and ten were attributed to so-called moral influences. Here two thirds of the alleged causes are physical, while at the Worcester Hospital four fifths are found in this class. But seven cases are classed as hereditary, which is, of course, an absurd error. At least one half, on due inquiry, would have been found to be cases of heredity.

Out of one thousand, more than half were married, widowed, or divorced persons. Marriage is supposed by most statisticians to be conducive to sanity and longevity. Spencer claims in a late work that marriage does not necessarily tend to longevity, since more of the stronger individuals of the race marry, being better able to endure the cares and duties of matrimony than the ebler folk. So the insane temperament tends to keep single many who would therwise increase the proportion of the insane in the married class. The bove figures are valueless until we know the numbers of married and single the State at large.

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[1] *Report of the Butler Hospital for the Insane.* Providence, R. I., 1875.

[2] *Report of the Minnesota Hospital for Insane*, 1875.

T. W. F.

EASTERN MEDICAL ASSOCIATION OF NORTH CAROLINA.

THIS pamphlet[1] contains the record of a meeting of an association whose bject seems to be to improve the medical profession in North Carolina. So ar it is well enough. But too much time and too many words are used up in he effort. Among the matters spoken of is a case of "successful aspiration of he stomach through the abdominal walls for the evacuation of a poisonous dose f laudanum." We can only look upon this as an unfortunately successful case. t may lead others to use the aspirator instead of the stomach-pump, with the esult of puncturing both sides of the stomach, or some vessel that would be beter let alone.

We hope the association will be a success.

DOBELL ON WINTER COUGH.[2]

THE third edition of this well-known book contains many additional suggestions in the way of treatment, and an appendix of articles relating to winter cough, by the author and others, which have been extracted from various medical journals. An entirely new introductory chapter is added for the purpose of calling the attention of the profession to the perivascular system, a more intimate knowledge of which the author thinks may throw light on thoracic symptoms hitherto obscure.

HOSPITAL MANAGERS ON THE RAMPAGE.

OF the many surprising occurrences which make professional life exciting in New York, the latest is the summary dismissal of four members of the visiting staff of the Presbyterian Hospital in deference to the whim of a woman. The managers are in a trying position. They give no reason for their course, apparently preferring to incur the suspicion of the community by their silence rather than the displeasure of the "lady directress" by an explanation.

"Tantæne animis cœlestibus iræ."

Regardless, however, of the delicate position of the managers, over sixty of the most prominent physicians have sent them the letter which we print below. This leaves them no alternative between explaining themselves, at no matter what risk, and of incurring the contempt of all plain-dealing men. The effect on the hospital itself is deplorable, for we do not see how any physician of self-respect can hold a position in it.

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[1] *Proceedings of the First Annual Meeting of the Eastern Medical Association, at Newbern, N. C.*

[2] *On Winter Cough, Catarrh, Bronchitis, Emphysema, Asthma.* By HORACE DOBELL, M. D., etc. Third and Enlarged Edition. Philadelphia: Linsday and Blakiston. 1875.

The protest reads as follows: —

TO THE MANAGERS OF THE PRESBYTERIAN HOSPITAL:

GENTLEMEN, — We, the undersigned, members of the medical profession in New York, have learned with deep regret the late action of your board, whereby you have dismissed from your hospital four members of the visiting staff without assigning any ground for such a course. So far as is known, these gentlemen were fully competent for the positions which they held, and discharged their duties with diligence and skill.

We believe that you have failed to realize the full character of your action. In summarily discharging these gentlemen you in effect proclaim your opinion that they are unfit for the positions which they held. By so doing you incur the responsibility of seriously injuring their reputation; and you have taken this grave step without preferring any charges, or assigning any reason for so doing. We believe you will admit that while you have acquired certain rights in assuming the position of managers of a hospital, you have also incurred certain obligations. While it is your right to appoint and dismiss the medical staff, it is also your duty to exercise this right for the best interests of the hospital. It is evidently your duty to obtain for the patients under your charge the best medical and surgical skill which our profession affords. We can hardly believe that any physician or surgeon of reputation will serve in any institution from which he is liable to be discharged without just grounds.

We believe, therefore, that both as members of the medical profession and as citizens we are justified in asking that you shall make public the reasons for your late action. If these gentlemen have in any way shown themselves unfit for their positions, let the facts be made known. If they have been discharged simply from caprice, they have a right to demand that this shall be made as public as their dismissal. We have the honor to be, very respectfully, your obedient servants.

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A REPUTED DEATH FROM ETHER.

IT seems that our English friends do not yet understand ether; nor do they, if we may judge from the following statement, appreciate the importance of the pulse as a guide in its administration.

From the *British Medical Journal* of May 1st we take the following account of the death, after the administration of ether, of a strumous boy, in whom chloroform had previously produced unfavorable symptoms. The absolute importance of the indication to be derived from the pulse, which was neglected in this case, is familiar to our own medical community, whose attention was called to it in 1846, almost as soon as surgical anæsthesia was invented. In regard to this case, we have no hesitation in affirming one of two things: either that the pulse did give ample and timely warning of danger by becoming gradually weaker; — or, that if it ceased suddenly with syncope, immediate measures would have revived the patient. As it was, nobody seems to have known when the heart ceased to beat. It is no exaggeration to say that at the Massachusetts General Hospital, in the case of a delicate child like the one in question, the pulse would have been kept in hand during the *whole* anæsthetic process.

"J. F., a delicate, timid boy, aged sixteen, had long suffered from strumous disease of the bones of the feet. He became an inmate of the Manchester Workhouse Infirmary last autumn. On September 25th last Dr. Hardie removed the right foot at the ankle-joint, chloroform being administered. He bore the anæsthetic well. On October 29th the cuboid bone of the left foot and the metacarpal bone of the left thumb were excised. On this occasion chloroform was again administered. When the operation had been completed some alarming symptoms showed themselves, namely, fixed dilated pupils, feebleness of pulse, extreme pallor, and absence of respiration. These quickly passed off on the tongue being forcibly drawn forward, cold water spinkled over the face, and galvanism applied to the phrenic nerves. On the third of the present month, bare bone having been found to remain in the unhealed wound of the thumb, the boy was again placed on the operating table, having previously been given an ounce of brandy. He was asked to have the trifling operation performed without an anæsthetic, in order to test his probable endurance: but, the patient beginning to whimper, Dr. Hardie stirred a probe about in the wound. This caused him to cry out, and ether was administered by Dr. Hardie, who poured about four drachms on a piece of lint, which was placed in a folded towel and held pretty closely over the face. He inhaled the vapor more quickly than usual, there being no coughing and but little struggling. In about four minutes from the commencement of the inhalation, and before any fresh ether was poured on the lint, he was apparently ready for the operation. Immediately afterwards, before the operation was begun, Dr. Hardie observed the respiration, which he had been closely watching, suddenly cease, and at the same nstant an extreme pallor came over the face, and the pupils became widely dilated. At the moment when these symptoms appeared he had not his finger on the pulse, nor did he feel for it before resorting to remedial measures. Mr. Pountney, the house-surgeon, however, on placing his finger over the radial artery, when Dr. Hardie gave the alarm, found it to be imperceptible. Dr. Hardie immediately pulled the tongue forcibly forward, but without effect. The poles of a battery standing in readiness were then applied to the phrenic nerves, and only induced three or four gasping attempts at respiration. Nélaon's method of suspension by the feet was then resorted to, without the slightst avail. Indeed, beyond the gasps induced by the application of the battery, here was not the smallest response to the efforts towards reanimation. After wenty minutes these were discontinued."

A post-mortem examination revealed nothing abnormal, if we except a "commencing amyloid degeneration of the spleen." "The ether used was Robns's ether for local anæsthesia." We assume this to have been pure ether.

Since the above was written, we find in the *British Medical Journal* of May 8th, page 616, the statement that "Robbins's ether is vaunted as being a ompound ether of low specific gravity and boiling point, and is expressly made for producing local anæsthesia. Now, in this ether, when inhaled, I ca well imagine we have elements of danger. Having some in my possessi I took its specific gravity, and found it .622, and, on comparing it with so of the ether I have mentioned, it was evidently far more volatile; in f though analogous to sulphuric ether, it is by no means the same compo but we have instead a light compound ether, extremely volatile and diffusi inhaled 'more quickly than usual' by a patient who has some months be shown dangerous symptoms under chloroform."

In this country our purest commercial ether is Squibb's, which is less agreeable for inhalation than ether of not quite so high proof. Squibb's ether is rendered less pungent by thoroughly wetting the sponge on which it is administered. This also increases the capillary attraction of the sponge, and makes it hold the ether better.

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IODIDE OF POTASSIUM IN SYPHILIS.

Dr. Joseph R. Beck contributes to the *Philadelphia Medical Times* of March 13, 1875, a paper on the use of iodide of potassium in syphilis. He states that he has not made use of mercurials in the treatment of syphilis for a long time. Notwithstanding that secondary symptoms rapidly disappear when mercury is employed, he claims we have only succeeded in such cases in masking the disease, and that after a time tertiary symptoms are sure to follow. To use his words, "Every case of secondary syphilis which has been successfully (?) treated by mercurials will, as surely as the sun rises, reappear as tertiary syphilis if the patient lives long enough." Syphilis, either secondary or tertiary, cannot be radically cured in a few weeks or months, but requires a year or more of careful treatment. Dr. Beck implies that secondary syphilis can be so successfully treated by the iodide of potassium as never to recur in its tertiary form.

For the cure of syphilis by the iodide of potassium very large doses must be employed. He prescribes seven drachms of the iodide, and four drachms of the ammonio-citrate of iron in an eight ounce mixture, and gives a tablespoonful before each meal. Fowler's solution of arsenic (one drachm three times a day of an eight ounce mixture containing three drachms of the solution) is also prescribed, and if anæmia be present, one grain of quinine and two of pulvis ferri are given every three hours; also cod-liver oil with fluid extract of valerian. If ulcerations be present, he brushes over them three or four times a day a solution of hydrate of chloral, one part to two of distilled water. Such are the first prescriptions. In each of the succeeding prescriptions, one drachm of the iodide of potassium should be added to the formula, and the dose of Fowler's solution is to be augmented by one half a drop. "The iodide should then be carried up drachm after drachm in strength with each successive prescription, until we reach twenty or twenty-five drachms' strength to the formula, or as much as is necessary, taking care to order the increase made only with each succeeding fresh prescription." The arsenic is increased until a dose of five drops of Fowler's solution is attained, when it is inally omitted as an adjuvant. The iodide, however, is increased till symp-oms of decided iodism are induced, when its administration is stopped for a week; it is then resumed for a week, and if iodism shortly again ensues, Dr. Beck confidently dismisses his patient "perfectly and permanently cured, with he poison of syphilis and that of mercury forever eradicated from the system."

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MEDICAL NOTES.

— Dr. C. M. Duncan, of Shelburne, recently read before the Franklin District Medical Society a paper on the late Dr. Humphrey Gould of Rowe, who died last October in his seventy-eighth year, of cystitis, after much suffering, but retaining his mental faculties and cheerfulness to the end. We quote the following passages: —

"Dr. Gould was a pure, upright, honest, and honorable man, respected and loved by all who knew him, a man whose genial conversation, always pleasing, entertaining, and instructive, made him equally the favorite of old and young. His stories, of which he had unfailing store, were always apt and to the point, and were told with so much animation and in such a pleasing manner that no one ever tired of listening to them. He never lacked for words with which to express himself, but the right word was always in the right place. By these social qualities he endeared himself to all classes in the community, and there are few physicians who have more pleasing and extensive relations with the pulpit and the bar, or those in the more humble positions in life, than he had. He was one of those public-spirited men whose untiring energy, industry, and enterprise will be sadly missed by the people of the town in which he lived. He was a true gentleman of the old school, who never forgot to extend the same courtesy and politeness to the poor, as he did to the rich.

"He wrote but little on scientific subjects, and published almost nothing, yet his epistolary correspondence would fill volumes. In 1860 Dr. Gould delivered an address before the Franklin District Medical Society, upon the medical history of Rowe."

— Dr. Dyce Duckworth, recommends in the *Practitioner* for April, 1875, a solution of bicarbonate of soda for the relief of toothache. He employs half a drachm of the salt to an ounce of warm water.

— For the treatment of head lice among the poor, Dr. Bulkley writes to the *American Practitioner* that he employs kerosene oil, with which the head is to be soaked for twenty-four hours. It destroys the parasites and their nits. Then wash the head well with soap and warm water, comb it out, and saturate t with cod-liver oil till all the sore places are healed.

— A case of habitual ether inhalation is reported by Dr. C. A. Ewald, of Berlin, in the *London Medical Record* of April 7, 1875. The patient, a man ged thirty-two, was admitted into the university clinic complaining of general *alaise*, weakness, loss of appetite, and muscular tremors. His whole aspect as indicative of misery, and it was ascertained that for several years he had been addicted to the inhalation of ether, and had fallen from a respectable station to the wretched condition in which he presented himself. He was well known in Berlin by the name of "Ether Fritz."

In his earlier days the patient was a temperate man, free from excesses of any kind. Occupied principally with philosophical and æsthetic studies, he was especially inclined to meditate on theologico-mystical subjects. A work by Dieffenbach fell into his hands, in which the action and use of ether in medicine were described, and the condition of narcosis depicted in glowing colors. It was stated therein that the ether narcosis was capable of facilitating to an extraordinary degree the creative power of the mind, quickening its productivity, and so the patient thought that he had found in ether the means of fertilizing his poetic fancy. In December, 1865, he first endeavored to obtain the desired result by inhaling about two and a half ounces of sulphuric ether from a pocket-handkerchief. He immediately became unconscious, and had a host of very lively illusions, principally consisting of theologico-mystical conceptions, in which, however, as in opium and hashish smoking, there was a complete disregard of time and space. He believed that he had traveled through worlds and had lived for an infinity of time, and yet he could scarcely have been narcotized a quarter of an hour. Naturally he repeated the experiment, but his subsequent illusions were never so pleasurable as at first, though he endeavored to recall them by larger doses. The experiment soon became a habit. At first he only took the ether in his room, but soon he had no rest out of it. Holding a handkerchief saturated with ether before his mouth and nose, he staggered through the streets. He bought ether in small quantities, for his disordered circumstances no longer allowed him the means of procuring it in sufficient doses to produce complete narcosis. At last he came to consume about two and a half pounds of ether in a day. He became homeless and penniless, and in this condition presented himself at the Charité Hospital.

To test the truth of his statements regarding the character of his hallucinations, it was concluded to narcotize him, and it took to produce this result about seven and one third ounces of ether, administered by means of an inhaler, preventing evaporation into the air as much as possible by applying cotton-wool. Even this quantity produced only a momentary effect. The patient, as has been stated, was in the habit of taking much larger quantities than this in the course of a day, but a large quantity must have escaped into the air, and it was very rarely that he was completely narcotized. When allowed to etherize himself he placed a handkerchief over his mouth and nose, laying a pencil and a piece of paper near him to note down any of his thoughts, and from time to time poured out fresh ether, so that he pretty soon fell into a state of intoxication, during which he talked extravagant nonsense, danced about the room, laughed, etc., but his condition was far removed from narcosis.

The patient was treated by restoratives and cold baths, with doses of cannabis Indica. There is little hope, however, that when restored to liberty he will not return to his old habit.

—Arthur Heap, who was convicted of the murder of a young woman at Manchester, England, by an unsuccessful attempt to procure abortion, was executed on the 19th ult.

URGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DRS. HOMANS AND INGALLS.]

THE following operations were performed during the week ending Friday, Iay 7, 1875 : —

1. Tracheotomy. 2. Phimosis. 3. Abscess of scrotum. 4. Amputation of ngers. 5. Sinuses over costal cartilages. 6. Exostosis of toe.

1. *Tracheotomy.* — At noon on the 4th inst., a girl, twelve months old, put piece of egg-shell into her mouth and immediately began to choke. Her nother quickly inverted her, held her head down, and slapped her sharply on er back. She soon breathed easily, and went to sleep. She remained quiet till our o'clock P. M., when dyspnœa set in, and lasted all night. She was brought o the hospital on the morning of the 5th of May. She was then livid, and reathing with great difficulty. No foreign body could be discovered either with inger or with laryngoscope. As the dyspnœa was rapidly increasing, threatening to terminate life soon, Dr. Ingalls performed tracheotomy in the hopes of inding the cause of suffocation. After opening the trachea careful search was nade above and below the aperture, but nothing abnormal was found. A rachea tube was introduced, and the respiration became easy and natural. The ividity disappeared, and at the end of an hour the child drank some milk as ell as ever.

The morning after the operation the respiration was 60, temperature 103°. he sank and died at three o'clock A. M. of the 7th. There was no autopsy.

Although no foreign substance was found at the time of the operation or ubsequently, yet there would seem to be no doubt of the correctness of the iagnosis. A healthy child is seen to put a piece of an egg-shell into her mouth, nd immediately suffers from dyspnœa. This continues till the child's position changed, and she gets several smart blows upon her back. In a few hours he dyspnœa returns and persists till the trachea is opened. The operation ffords only temporary relief, and the child dies from apnœa. All of this points nmistakably to a foreign body in the air-passages.

Gunshot Wound of Arm and Abdomen. — The following case is reported for e severity of the injury and for the peculiar manner in which it was received.

As a young man, aged seventeen, was endeavoring to break into a store at out eight o'clock in the evening of the 2d inst., his exertions discharged a n which had been set for the purpose of shooting any burglar who should tempt to force an entrance. The bullet passed through the fleshy part of e middle of the left fore-arm, which was flexed and elevated at the time. assing downwards and backwards it then pierced the tenth rib near the costal rtilage on the left side, and emerged just to the left of the spinous processes the lowest dorsal vertebræ. On receiving the wound the patient ran about o hundred yards to his home, and fell to the ground. He bled considerably, d vomited several times within two hours of the accident. He was brought the hospital at eleven P. M. the same evening. He was then suffering from spnœa and pain in the abdomen. Pulse 90. Extremities cold. Morphia d brandy were given, and heat applied to the surface. Hæmorrhage was slight. Simple dressings were applied to the wounds. In the evening of May 3d, the pulse was 120, small and hard. There were severe pain and tenderness in the abdomen, with marked tympanites. The legs were drawn up; the urine dark colored, and contained a good deal of blood. Opium, tincture of veratrum viride, and turpentine stupes were ordered.

The next day the patient was more comfortable; his abdomen was still swollen and tender, but not as much so as last night. The urine was bloody. Treatment continued.

May 5th, the pulse was 108; the temperature 101°. Tongue brown and dry. Microscope shows blood in the urine.

May 7th, pulse 84; temperature 99.1°. The patient was comfortable, and had no pain. The abdomen was very slightly tender. The wounds looked well. The discharge was moderate and did not contain urine.

The wound was never probed at the hospital, but it seems probable that the ball passed very near the peritoneal cavity as well as the left kidney. It seems hardly possible that either should have been penetrated, or the peritoneal inflammation would not have subsided so quickly. It would be more reasonable to suppose that both kidney and peritoneum were contused by the bullet, thus giving rise to the hæmorrhage and inflammatory symptoms.

GEO. W. GAY, M. D.

LETTER FROM DETROIT.

MEETING OF THE AMERICAN SOCIAL SCIENCE ASSOCIATION.

MESSRS. EDITORS, — The success of this meeting ought to be, and no doubt is, matter of great congratulation among its members, for the association has scarcely yet reached a point where it can afford to make a failure in any of its undertakings. Organized in 1865, it pursued its way with moderate encouragement for several years, when its energies seemed to flag, and at the close of 1872 the question was seriously debated whether it were not better to give up the organization. Thanks to the good sense and the enthusiasm of such men as Agassiz and Benjamin Peirce, this proposal was rejected and a thorough reorganization was effected. The present is the third general meeting held since that time, and appears to have been an improvement upon the two previous ones; the actual attendance upon the sessions has been greater than last year (in New York), and the general feeling seems to be that Detroit was the very best place the meetings could have been held in. Both in this city and in this and neighboring States a great and cordial interest has been felt, and hospitalities of every kind have been freely extended to the delegates.

The proceedings were opened in general session by an address by the President, Hon. David A. Wells, of New London, Conn., upon The Distribution of Capital and Social Development, which engaged the close attention of an audience of about a thousand persons. A paper by David A. Wasson folowed. upon the Relations of Church and State in Germany, and after that a rief report was presented by Dr. D. F. Lincoln, Secretary of the Department of Health, descriptive of the methods in which the department is now xamining the subject of the health of schools. These papers were read in he Opera House on the evening of Tuesday, May 11th, and were not debated; ut during the remaining three days of sessions (held in various rooms in the ew City Hall) almost every paper was discussed by the audience, and sometimes at great length. In the "general" or principal meeting the favorite ubjects were those of finance, jurisprudence, education, and criminal reform; ut I will pass from them to the "sectional" sessions (which are of more irect interest to the medical profession), held by the Department of Health, nd to the conferences of Boards of Public Charities.

The sessions of the health section opened with two long and elaborate papers: The Nervous System as injuriously affected by Schools, by Dr. Lincoln, and Gymnastics for Schools, by Dr. James J. Putnam, of Boston. These have been noticed in the Boston daily papers, and I will not attempt to give an abstract, as they will probably be published shortly in the proceedings of the association. In the afternoon, Dr. Webster of New York, assistant to Dr. C. R. Agnew, read a short paper containing the statistical results of examinations of the eyes of school-children, now making under the direction of Dr. Agnew, in various large cities.

These will, when completed, constitute one of the most important set of observations ever made by the Social Science Association, and I do not hesitate, therefore, to insert here a condensation of the paper, which Dr. Agnew has very kindly prepared for me, as follows: —

European observers have demonstrated the fact that during school life there are developed in the eyes of scholars diseases which increase in frequency and gravity from the primary to the university grades. It is not necessary to repeat here a review of the work of Cohn, Erismann, and others, as that has already been done in the pages of your journal. Our object now is to begin a statement of the result of preliminary examinations made in New York, Brooklyn, and Cincinnati, on the same subject. In these cities the eyes of 2884 scholars of both sexes, ranging in age from six to twenty-six years, were examined, and the conditions as to the refraction and diseases noted and tabulated. In the same connection the state of the school-rooms as to light, desks, heating, and ventilation was observed, as also the length and distribution of study hours, and other facts affecting health.

In Cincinnati, Ohio, the eyes of 1264 scholars were examined by Dr. Ayers and Dr. D. Booth Williams. About one third of these belonged to the district schools, one third to the intermediate, and the remaining third to the normal and high schools. In the district schools 13.3 per cent. were near-sighted (11.3 per cent. of the boys and 15.3 per cent. of the girls). In the intermediate schools 13.8 per cent. were near-sighted (9.5 per cent. of the boys and 18.1 per cent. of the girls). In the normal and high schools 22.8 per cent. were near-sighted (22.2 per cent. of the boys and 23.2 per cent. of the girls).

Dr. J. S. Prout and Dr. Arthur Mathewson examined the eyes of 600 students at the Polytechnic, Brooklyn, N. Y., all boys, 284 belonging to the

demic and 316 to the collegiate department. In the academic depart
nt 9.2 per cent. were near-sighted and in the collegiate department 21
r cent. were near-sighted. Dr. William Cheatham examined the eyes of 102
idents in the New York College, New York, all boys, 670 belonging to th
troductory class, 210 to the Freshmen, 110 to the Sophomores, and 30
ie Juniors. In the introductory class, which is made up entirely of studen
who have passed the public schools, 21.9 per cent were near-sighted; of t
eyes of Freshmen 26.2 per cent. were near-sighted; of the Sophomores 2
per cent. were near-sighted; of the Juniors examined 50 per cent. were ne
sighted. The number of Juniors examined was too small, however, to be o
any scientific value.

The tables show that staphyloma posticum, one of the gravest organic changes in progressive near-sightedness, increased from 0.5 per cent. in the district schools to 7.6 per cent. in the intermediate and 10.4 per cent. in the normal and high schools.

In one of the large schools, in which a careful ophthalmoscopic examination was made of every scholar, out of about 1000 scholars the eyes of 703 were found to deviate otherwise than in refraction, from the normal standard. The conditions referred to were as follows: —

Staphyloma posticum	217
"Physiological" excavation	119
" " with venous pulsation	176
Venous pulsation	140
Arterial and venous pulsation	1
Opaque nerve fibres	4
Atrophy of optic nerve	3
Neuro-retinitis	1
Retinitis albuminurica	2
Floating bodies in vitreous	1
Irideremia with cataract and nystagmus	2
Detachment of retina	1
Opacity of anterior capsule	1
Polar cataract	12
Traumatic cataract	1
Opacity of cornea	11
" " with synechia anterior	1
Foreign body on cornea	3
Nystagmus	2
Convergent squint	4
Granular lids and pannus	1
	703

A long discussion followed this paper, in which a number of the physicia
clergymen, and teachers of Detroit took part.

The next session was occupied in discussing the project of a law establi
ing the office of Medical Inspector of Public Schools. On the day after,
very extensive and careful reports were presented from the Philadelphia p
school authorities, descriptive of an inquisition into the sanitary conditi
the schools of that city, and comprising returns from the principals of
schools, as well as from a number of physicians and chemists, some of

esent analyses of the air of school-rooms. Prof. Henry P. Bowditch's plan
r obtaining facts relative to the rate of growth of children of different ages
d nationalities in Boston was next described. It consists in taking the weight
d height of every child in the public schools of that city, as nearly as possi-
e at the same time, and afterwards ascertaining the average height and weight
each half-year of the school-life, the scholars being classified according to
tionalities. And in closing, a paper upon the Sanitary Requirements of
hool Architecture was presented by the secretary, and discussed at length.

The Conference of Boards of Public Charities was opened by an address
m the governor of the State; after which papers were read as follows: On
e Care of the Insane Poor, by Dr. Nathan Allen; Medical Charities, by
o. S. Hale, Esq., of Boston; The Treatment of Criminal and Neglected Chil-
en in the United States, by Miss Mary Carpenter, of England; A New Method
Checking Crime, by Bonneville de Marsangy, of Paris (printed in French
Detroit papers); and Immigration, by Hon. Hamilton A. Hill. It is needless
add that the discussions were extremely practical and interesting.

There is not space here to mention the transactions of the political section
d the section of jurisprudence, where some of the most solid and brilliant
rk of the meeting was performed, and which, with the "general sessions,"
oved attractive to large miscellaneous audiences.

The place for holding the next general session is not determined, although
ne kind of a meeting is to be held in the autumn of 1876, in Philadelphia,
a part of the Centennial performances.

LETTER FROM NEW YORK.

MESSRS. EDITORS, — Quite a struggle has been going on for the past two
eks for the position of Commissioner of the Board of Health, made vacant
the first of May by the expiration of Dr. Stephen Smith's term of service.
e homœopathic physicians and their friends have been working for the
pointment of Dr. J. W. Dowling, President of the Homœopathic Medical
llege in this city, while the friends of Drs. William A. Hammond, Ceccarini,
d Janeway have been equally strenuous in their exertions to obtain the posi-
n for one of these gentlemen. The mayor, who has the power of making
minations, named Dr. E. G. Janeway for the position, and he received his
edentials on the first of May. The profession, outside of the politicians, are
ll pleased with the appointment. Dr. Janeway has been professor of patho-
gical anatomy at Bellevue Medical College for several years; he is a hard-work-
g, able, conscientious student, and has done well whatever he has attempted.
e will prove, no doubt, a valuable acquisition to the board, which now con-
ts of Professor Charles F. Chandler, of the School of Mines of Columbia
llege, G. W. Matsell, President of the Board of Police, Dr. S. Oakley
nderpoel, Health Officer of the port of New York, and Dr. E. G.
neway.

The trouble in the Presbyterian Hospital, to which reference was made in my last letter, seems as far from a satisfactory settlement as ever. At a meeting of the board of trustees held last week, Drs. A. B. Ball, George Wheelock G. H. Wynkoop, and W. DeF. Day were dropped from the list of attending physicians, without any reason or cause being assigned, and without a hearing If there has been any cause of complaint against the members of the attending staff, these gentlemen certainly have not sinned against the "resident directress," which was the cause of their dismissal, more than the eight who we retained, and it is an act of great injustice to the four gentlemen who were di placed; we do not see how the board of trustees could have made such blunder.

The trouble is not with the medical board, but with the attempt to put "lady directress" at the head of a general hospital, with almost absol power. It is a wrong position for a "lady" to hold, and it is strange that h friends cannot appreciate the fact; it is unjust to the medical staff, who a well informed in regard to hospital management, to allow a directress to di tate in regard to matters strictly medical, and whoso only recommendation is good executive ability and a desire to be a second Florence Nightingale, bu who has shown an entire want of tact in getting on smoothly with those wit whom she is brought in contact. The board have appointed Drs. S. T. Hubbard, G. M. Smith, F. A. Burral, and V. S. Wooley in the place of those physicians dismissed. It is rumored that the greater portion of the old medical board will resign. If the tenure of office, as an attending physician or surgeon to a hospital, is to be limited by the likes and dislikes of one of the subordinate officers of that institution, the sooner the profession become aware of the fact the better; but few gentlemen will be willing to place themselves in such positions. Only one case of dismissal, and that for failing health and reason, has ever been known in New York until now. There is considerable feeling among the profession in regard to this matter, and a strong protest is being very generally signed against the gross injustice of the action of the trustees towards those of the medical staff who have been dismissed. The daily papers are taking up the theme, and the whole subject of hospital management bids fair to be pretty well discussed before this affair is settled; if the relations existing between the governing boards of charitable institutions and their medical attendants can be placed upon a more harmonious footing, and the physician be looked upon more as a co-worker than one to be watched and suspected, the medical profession will not alone be the gainers.

I have heard of several changes that have been made in the faculty of the College of Physicians and Surgeons. Dr. Francis Delafield has been appointed adjunct professor of theory and practice of medicine, Dr. John G. Curtis adjunct professor to the chair of physiology, and Dr. Charles McBurney demonstrator of anatomy.

The University Medical College is putting up a new building, to be ready for use by the first of October. Their old building, which has been occupied for only a few years, has been found too small and inconvenient for their increased prosperity.

The *Psychological Journal* will pass out of the editorial control of Dr. W. A. Hammond after the first of June, and Dr. Allen McL. Hamilton will have charge of it. It will be changed from a monthly to a quarterly journal. There is certainly room for a good periodical of this description in New York, and that it may prove a success is the wish of all those who have the well-being of the profession at heart.

Quite a subject of remark has been made of late of the fact that some gentlemen who have read papers before two of the medical societies have had very full abstracts printed of such papers in the daily journals. The propriety of such publications is seriously questioned, as it certainly opens the door to a practice tending to lower the standard of professional respect, and partakes very much of the nature of quackery. We have seen reports, and in some instances nearly the whole paper, printed in one of the daily papers the morning after it was read, such as the treatment of pneumonia, diphtheria, etc. This is wrong, as it tends to destroy the confidence between the sick and their physician; it is simply a species of advertising. It is high time some action was taken by those societies which have permitted certain members to use their names to further their own ends, to the detriment of their brother practitioners. They may call it what they will, try to explain it away by stating "that they are trying to educate the public," etc., but it is rather a strange coincidence that the name and address of the writer is always to be found in some part of the paper.

There is a great amount of malarial trouble in New York. We always have it with us, but it seems to be unusually prevalent this season. It is an influence we always have to contend against in treating all kinds of disease. New York is badly sewered, and in the upper portions of the city most of the houses are built over old swamps and ponds which have been filled in without any means being provided to drain the land; hence all the houses are damp and unhealthy. We have to give a great deal of quinine, and that in doses that would surprise those not accustomed to practice in malarial districts.

MAY 10, 1875.

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LETTER FROM CHARLESTON.

MESSRS. EDITORS, — It occurs to me that I could not comply with your request more appropriately than by furnishing a sketch of our short-comings in the distant South in matters pertaining to our profession. Our State medical convention has just met. In its attempts, within the past few years, at reorganization, you will see from the small attendance at our meetings, and the meagre reports we furnish, to what extent the well-known embarrassments in our country have affected progress in every department in the commonwealth of knowledge. There were scarcely more than forty permanent members present from all parts of our State. Dr. James McIntosh, of Newberry, presided, and delivered an interesting address on the use of hypodermic injections of the extract of ergot in uterine and other hæmorrhages.

Dr. J. F. M. Geddings, chairman of the committee, reported on Bright's disease, but the length of an exhaustive essay illustrated by cases permitted him to read only abstracts from the report, which will be published in the Transactions.

The report of the committee on puerperal convulsions was read by its chairman, Prof. J. F. Priolean. which led to an interesting discussion and will be published. A paper on acute articular rheumatism, with heart complications. treated by cold baths successfully, was read by Dr. S. Baruch, of Camden, our ex-president, who also presented a beautiful specimen of fibroma of the entire upper-jaw, which he had excised. The patient had suffered from malarial fever, and during the progress of the case was attacked with tetanus, accompanied with opisthotonos and emprosthotonos, but ultimately recovered.

In some remarks which followed the perusal of these cases, Prof. M. Michel observed that the supervention of tetanus invested the surgical case with great interest, as operations on the jaw usually terminated favorably, and he believed that tetanus scarcely ever was known to follow them, in patients otherwise healthy. In the record which he had published of a very large number of gunshot wounds of the face, occurring during the war, he had not met with a single instance of tetanus, to which fact he had specially called attention. The occurrence of this accident after an excision of the jaw, he was inclined to refer to the malarial taint from which it was apparent the patient had suffered, and not to injury in a region in which the severest mutilations were seldom, if indeed ever, followed by tetanic complications.

Dr. Robert Gibbes, of Columbia, inquired whether Fergusson reported any tetanic symptoms in the many exsections of the jaw which he has recorded, observing that he thought the question certainly was interesting in this connection.

Dr. Baruch was not sure that the tetanus in this case was due to malarial origin; he had looked upon it as incidental to the operation. He did not remember whether Fergusson's cases gave any instances of tetanus.

Prof. F. L. Parker showed an apparatus for remedying contractions of cicatrices after burns, and exhibited a case successfully relieved by it.

Dr. A. H. Moore read a paper on the essential nature and causes of meningitis spinalis, referred to committee on publication.

At this juncture a telegram was received from the Alabama Medical Association, in session at Montgomery, conveying "kind and fraternal feelings for bodies assembled for like high purposes," to which the secretary was instructed to respond.

Prof. R. A. Kinloch read an account of an intra-uterine elastic stem-pessary of his invention, dwelling upon the indications for its use. This paper called forth an animated discussion, kept up by the exhibition of a modified pessary, the invention of Dr. Priolean, accompanied with drawings enabling Dr. Priolean to fully explain the class of cases to which it was adapted. This prolonged debate was participated in by Drs. Baruch, Gibbes, Buist, and others.

Some instruments for facilitating the difficult operation of staphylorraphy, and vesico-vaginal fistula, contrived by Dr. E. B. Turnipseed, of Columbia, were shown and explained by him; they were much admired for the perfection of their execution, and the doctor was requested to report practical results at the next annual meeting.

Dr. Taylor, of Columbia, now introduced a patient of his with a laryngeal tumor, which was well exhibited to many of the members, with the laryngoscope. Dr. Taylor had successfully performed laryngo-tracheotomy for temporary relief; he gave a synopsis of the treatment and a description of the proposed operation for its removal.

The next patient presented, was one who had been trephined one year ago by Dr. Darby, of Columbia. The patient was somewhat improved, though still paralytic; he had had but three epileptic seizures since the operation.

Prof. F. P. Porcher read a paper on the open dressing of wounds.

Dr. Wiley gave an account of a case of strychnine poisoning, and a paper n the use of atropia in threatened abortion.

Prof. M. Michel brought a young man before the association with ptosis of the eft eye, mydriasis, paralysis of all the recti muscles except the external rectus, omplete facial paralysis, and slight paralysis of the left arm. When Dr. Michel aw this gentleman in consultation, confined to bed with complete paralysis of he left side and other symptoms above mentioned, he was informed of a previous ttack of syphilis, for which he had been treated. On attempting to walk he ad lost all power of coördinating his movements, and was irresistibly propelled o the left until driven against the wall. He had suffered much with headache nd circum-orbital neurosis, and a disposition to sleep. There was little doubt f some intra-cranial trouble at the roots of the third and seventh pair of erves, of a syphilitic origin. Under proto-iodide of mercury, and friction with nercurial ointment, he had somewhat improved; could now walk and use left rm; facial paralysis was slowly disappearing, since he has recovered the use of he buccinator so that he whistles. This case will doubtless be detailed in full.

The last evening's session was made very interesting by a communication rom Dr. I. W. Angel. A valuable specimen of a ruptured uterus at about he fourth month of gestation accompanied the reading of this paper. It apears that external violence caused the rupture.

In the remarks elicited, Professor Priolean said that the difficulty the obsterician encountered in these cases was the diagnosis of the real nature and exent of the injury; whether it was a case of tubal pregnancy, or partial laceraion of the uterus which might permit of delivery *per vias naturales*, or whether astrotomy was called into requisition. He said that Trask had collected a umber of such cases.

Dr. R. Gibbes said that the accident was rare, however, particularly at so arly a period of pregnancy. While he was house physician at the Dublin Hosital, many years ago, he had seen the only case which has ever come under his lirect observation, but here pregnancy had advanced to the seventh or eighth nonth.

Dr. Wiley inquired whether a fœtus thus escaping into the abdominal cavity might not become encysted, lead to an abscess, and be subsequently eliminated by piecemeal.

Dr. J. S. Buist mentioned one case which occurred in his private practice some years ago. He found a child at full term, born dead, still connected by the funis to its mother, who herself was lying dead in her bed. An interesting *post mortem* made by himself and two of his colleagues disclosed a rupt-

ured uterus, with some ramollissement about the fundus. She had previo
had some difficulty with a retained placenta in an antecedent pregnancy.

Professor Michel observed that as Dr. Angel had invited him to exa
the specimen, which on account of its rarity had interested him much, he c
not forbear making some remarks upon the subject. It was not many y
since the Société Medical d'Émulation, in Paris, had offered a prize for the
essay on this subject, which led to the publication of a work by Duparcqu
which, in 1836, not more than sixty-eight cases were gathered from the an
of our science. Nevermann, in Germany, soon followed up the subject, ad
a record of two hundred and ninety cases, and some years after. Dr. T
published a total summary of over four hundred cases, which neverthe
shows how rare an occurrence the rupture of the uterus must be at any pe
of gestation.

The most extraordinary cases of this accident are undoubtedly the spont
ous rupture of the virgin uterus from simple abnormal growths, such as hy
tids and accumulations of other morbid products. When lacerations occu
early pregnancy the womb doubtless is diseased, perhaps always softened.
less some violence be the cause. Now in Dr. Angel's case the womb did
appear to him to be diseased, while the history of the case proves that it h
been made to sustain pressure from the knee of another as described in t
paper.

He did not suppose that muscular contractions at the fourth month were su
ficiently energetic to produce laceration of the organ in the absence of textur
change in its walls, therefore the few cases which have occured at or betwee
the third and fourth months of pregnancy have either a traumatic or a path
ological cause.

In reply to Dr. Wiley's inquiry, he would state that instances have been recorded where an embryo escaping into the abdominal cavity has been encysted, retained throughout a subsequent normal pregnancy, and ultimately been discharged through a parietal abdominal abscess. As to the course to be pursued in such complications at any period after the third or fourth months, he would certainly advocate and at once practice gastrotomy, more particularly as experience had taught us not to dread the opening of the peritoneal sac as much as we formerly did.

After some amendments to the constitution, one of the most important of which was to increase the number of standing committees, by the appointment of one on public hygiene, followed by the nomination and election of officers for the ensuing year, the association adjourned to meet next April in Charleston.

After the rehearsal of this professional *jugum verborum*, as dull perhaps to some of our associates as its perusal may prove to you, a circumstance of no subordinate importance considerately invited us to a more general field of combat, where the discussion of some of the other good things of the earth took place, at an entertainment well calculated to resuscitate an appetite beneath a paralyzed diaphragm, whence we all parted, each one more fully satisfied with himself.

Yours truly, A MEMBER.

CHARLESTON, S. C., *April* 28, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending May 22, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In the State at large, bronchitis, rheumatism, and pneumonia prevail.

In the Connecticut Valley influenza has a local prevalence. Orange reports an increase of diphtheria. Huntington reports a case of small-pox and an epidemic of measles.

In the Midland section measles and whooping-cough have increased.

In the Northeastern counties there is an increase of measles and whooping-cough. Peabody reports cerebro-spinal meningitis.

In the Metropolitan section, the epidemic of influenza lingers in its last stages.

In the Southeastern counties there is an increase of measles.

A noteworthy feature of the week's reports is the frequent mention of "German measles" (rötheln), particularly in those from the eastern and southeastern sections.

There was a marked decline during the week in the prevalence of all acute diseases except measles, and the exception is accounted for by the increase in the peculiar affection just alluded to.

Scarlatina is most prevalent in Boston and its suburbs; measles in Worcester County; whooping-cough in the Northeastern counties.

F. W. DRAPER, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MAY 15, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	543	27
Philadelphia	775,000	361	24
Brooklyn	450,000	200	23
Boston	350,000	152	22
Providence	100,000	35	18
Worcester	50,000	13	14
Lowell	50,000	19	20
Cambridge	44,000	26	31
Fall River	34,200	19	29
Lawrence	33,000	18	28
Springfield	33,000	7	11
Lynn	28,000	11	28
Salem	26,000	9	18

ANNUAL ELECTION OF DISTRICT MEDICAL SOCIETY OFFICERS. — Officers for the ensuing year have been chosen in the District Societies as follows: —

MIDDLESEX NORTH. — President, Dr. D. P. Gage; Vice-President, Dr. L. S. Fox; Secretary, Dr. A. W. Buttrick; Treasurer, Dr. N. B. Edwards; Librarian, Dr. M. G. Parker; Trial Commissioner, Dr. J. O. Green; Censors, Drs. C. M. Fisk, H. J. Smith, F. Nickerson, C. Dutton, G. Munroe; Councillors, Drs. G. Kimball, N. Allen, C. A. Savory, L. Howard, J. Spalding, G. H. Pillsbury, G. E. Pinkham, W. H. Leighton.

ESSEX NORTH. — President, Dr. W. Cogswell; Vice-President, Dr. F. A. Howe; Secretary and Treasurer, Dr. G. W. Snow; Librarian, Dr. M. C. Towle; Trial Commissioner, Dr. W. H. Kimball; Censors, Drs. J. Crowell, T. Kittredge, F. A. Howe, Orin Warren, J. A. Douglass; Councillors, Drs. J. C. How, W. H. Kimball, E. P. Hurd, D. Dana, C. N. Chamberlain, R. B. Root, S. K. Towle, O. F. Seavey.

PLYMOUTH. — President, Dr. N. B. Tanner; Vice-President, Dr. H. N. Jones; Secretary, Treasurer, and Librarian, Dr. B. F. Hastings; Trial Commissioner, Dr. H. W. Dudley; Censors, Drs. E. A. Chase, W. R. Howes, H. W. Dudley, W. Richards, J. C. Gleason; Councillors, Drs. A. Millet, J. C. Gleason, J. B. Brewster, W. Richards.

BRISTOL SOUTH. — President, Dr. C. D. Stickney; Vice-President, Dr. J. Dwelly; Secretary, Treasurer, and Librarian, Dr. C. D. Prescott; Trial Commissioner, Dr. F. H. Hooper; Censors, Drs. J. B. Whitaker, H. Johnson, J. B. Handy, J. Q. A. Tourtellot, C. D. Prescott; Councillors, Drs. R. T. Davis, S. W. Bowen, J. J. B. Vermyne, J. H. Mackie, J. Pierce, W. W. Comstock, G. Atwood.

WORCESTER. — President, Dr. J. O. West; Vice-President, Dr. H. Clarke; Secretary, Dr. W. H. Workman; Treasurer, Dr. J. G. Park; Librarian, Dr. L. S. Dixon; Trial Commissioner, Dr. L. F. Billings; Censors, Drs. G. E. Francis, E. B. Harvey, E. Warner, C. A. Wilcox, A. Wood; Councillors, Drs. J. S. Ames, F. W. Brigham, G. E. Francis, T. H. Gage, W. H. Lincoln, O. Martin, J. Sargent, E. M. Wheeler, J. Wilmarth.

BARNSTABLE. — President, Dr. G. W. Doane; Vice-President, Dr. S. H. Gould; Secretary, Dr. B. D. Gifford; Treasurer, Dr. C. M. Hulbert; Trial Commissioner, Dr. G. E. Munsell; Censors, Drs. P. Pinco, W. J. Nickerson, B. D. Gifford, T. N. Stone, J. M. Smith; Councillors, Drs. P. Pinco, E. Emery, T. N. Stone, C. M. Hulbert, S. H. Gould.

HAMPSHIRE. — President, Dr. F. C. Greene; Vice-President, Dr. O. F. Bigelow; Secretary, Dr. J. B. Learned; Treasurer, Dr. James Dunlap; Trial Commissioner, Dr. H. B. Stoddard; Censors, Drs. C. Seymour, G. Thompson, D. B. N. Fish; Councillors, Drs. S. A. Fisk, J. Dunlap, C. B. Smith, C. M. Barton.

ESSEX SOUTH. — President, Dr. E. Newhall; Vice-President, Dr. A. Torrey; Secretary, Dr. C. A. Carlton; Treasurer, Dr. W. Mack; Librarian, Dr. D. Coggin; Trial Commissioner, Dr. W. Mack; Censors, Drs. J. Garland, A. Kemble, O. B. Shreve, S. W. Torrey, J. G. Pinkham; Councillors, Drs. A. H. Johnson, D. Perley, A. Torrey, W. Mack, E. Newhall, G. S. Osborne, G. A. Perkins, P. M. Chase.

MIDDLESEX EAST. — President, Dr. S. W. Abbott; Vice-President, Dr. F. Winsor; Secretary, Dr. A. Ames; Treasurer, Librarian, and Trial Commissioner, Dr. A. Chapin; Censors, Drs. F. Winsor, F. F. Brown, A. H. Cowdrey, J. O. Dow, D. W. Wight; Councillors, Drs. F. F. Brown, S. W. Abbott, F. Winsor.

NORFOLK. — President, Dr. S. E. Stone; Vice-President, Dr. J. P. Maynard; Secretary, Dr. A. H. Nichols; Treasurer, Dr. G. J. Arnold; Librarian, Dr. D. S. Fogg; Trial Commissioner, Dr. R. Amory; Censors, Drs. F. W. Goss, W. B. Trull, G. Faulkner, J. W. Chase, O. F. Rogers; Councillors, Drs. R. Amory, G. J. Arnold, H. Blanchard, B. E. Cotting, F. F. Forsaith, J. Stedman, C. C. Tower, C. C. Hayes, J. Seaverns, R. T. Edes, J. H. Morison.

SUFFOLK DISTRICT MEDICAL SOCIETY. — A meeting will be held at the rooms in Temple Place, on Saturday, May 29th, at 7.30 P. M. The following papers and cases will be read: Dr. S. G. Webber, Spinal Meningeal Hæmorrhage; Dr. C. E. Brown-Séquard, The Actual Cautery: its Uses and Power; Dr. D. W. Cheever, Myeloid Disease of the Head of the Tibia; Dr. B. J. Jeffries, Rare Form of Tumor of Optic Nerve; Dr. J. R. Chadwick, Galactocele. Members of other district and State societies are cordially invited.

DR. BROWN SÉQUARD will deliver a lecture in the lecture room of the Natural History [illegible] at 7½ P. M., on Tuesday, June 1st.

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THE ARTIFICIAL FEEDING OF INFANTS.

NOTES OF A LECTURE AT THE HARVARD MEDICAL SCHOOL.

BY CHARLES E. BUCKINGHAM, M. D.,

Professor of Obstetrics.

THERE are a few more points concerning which it may be as well to speak, before we go on with the care of the mother. I have already objected to the giving of herb teas to the new-born child. The child is not of necessity sick, and there is no need of its being made so. It is not even hungry. There is no reason for giving sugar and water, or molasses and water, which will grow acid, or milk and water, or even simple water. But look out for the nurse, unless you know her well, or the child will surely get a few spoonfuls of some one of these things, or of some physic. The "red gum" or "red goom," as it is called, haunts the minds of nurses and grandmothers, and if it is not brought out upon the child's skin within a day or two, all the ailments of the next six months will be attributed to its absence. But what is "red gum"? Simply an eruption somewhat papular, which shows that the little one's stomach and bowels have not been in good working order. If it does not appear, we know that the nurse has not overdosed the child. It bears the same relation to the saffron tea which the child has had, that the nettle rash that will afflict some of you will bear to the spoiled lobster or the old mackerel if you eat it. And that is all.

If the child after being dressed is covered with a blanket, and put in bed, it will as a rule sleep the greater part of the time for the succeeding twenty-four hours, without crying. But this is not always the case. Some children cry for food earlier, and some do not show any signs of hunger till the mother's milk comes. It may be that the mother is not going to nurse the child, and perhaps she has no thought of employing a wet nurse; under such circumstances, when and how will you feed it? Now, this is a matter concerning which there are very numerous opinions. It is not my intention to tell you what other people say. I am simply going to give the result of my own experience. You can judge for yourselves, after you begin practice, whether I am right or not. The natural time to eat is when you are hungry. So it is for your child. One of you is hungry only twice in twenty-four hours; another of you, once only in that time; a third can eat and needs food four times in the twenty-four hours, and he is made sick and unfit for his duty if he is cut down to two meals; while he who needs but one will be uncomfortable and ailing if you force him to take two or three meals a day. It is precisely the same with the new-born children: one of them needs food every two hours, and another will go six hours without it. If you oblige the first one to go four hours, he is hungry and cross. If you force the second one to eat every two hours, the discharges become bad-looking, and his mother wonders that soothing syrup and paregoric will not stop his pain. You are simply giving the baby a *dyspepsia*. Let him alone, and do not try to feed him because the breast is full, or because the hands of the clock point to a particular hour. *If* he is asleep, let him sleep.

But of what is the food to be prepared? Remember that I am as yet speaking only of the child who is artificially fed. It is to be as nearly an imitation of the natural food as possible; and milk fulfills that condition. The milk of the woman resembles that of the cow in some degree. How does it differ? The woman's milk has in its composition more water, more sugar, more alkali, less butter, less cheese; and that cheese, in consequence of the alkali, is a much less firm cheese. Try the experiment for yourselves, by taking woman's milk and cow's milk in different tubes and adding a trifle of rennet to each. The difference in the curds will surprise you, at the end of twenty-four hours. The proportions of milk and water must vary with the character of the milk. It is not necessary that it shall be all "one cow's milk." If it were, you could not get it in our cities; and if you could, you know nothing of the cow; and if you did, one cow's milk differs from another's as much as the milk of two women differs. A safe way is to begin with a very weak mixture, taking the upper part of the milk, because it contains more cream and less cheese than the lower part. If it is followed by discharges of undigested curd, add from half a grain to a grain of bicarbonate of potash to each fluid ounce of milk. If the discharges still contain curd, water the milk more. Do not be afraid of starving the child by doing this. Milk which does not digest will not nourish; on the contrary, it irritates, and, as is the case with any other undigested food, one can starve with a stomach filled with it. I know that many nurses and many of our own profession will shake their wise heads in doubt upon this point, but you can show the cases which will prove the correctness of the statement, and cases of children fat now, who were emaciating on clear milk, before you made the change. I give you now the safe rule for the proportions of milk and water. There are of course variations to be made according to the peculiarities of different children.

Age of Child.	Milk.	Water.
3 to 10 days.	8 parts.	21 parts.
10 " 30 "	8 "	20 "
1 month.	8 "	18 "
2 months.	8 "	15 "
3 "	8 "	12 "
4 "	8 "	10 "
5 "	8 "	8 "
6 "	8 "	7 "
7 "	8 "	6 "
9 "	16 "	11 "
11 "	8 "	5 "
14 "	16 "	9 "
18 "	18 "	8 "

It would be well to mix at one time the amount required for an entire day. What is left in the bottle after a feeding should be thrown away, and the bottle should be scalded before it is used again.

In this matter of feeding children, I must not forget to call your attention to the time when a tooth presses upon the gum. No matter what the age of the little one may be, that is not the time to add to the strength of the food. On the contrary, as with any other disturbance of the system, there is apt to be fever, and it would be wiser to increase the water, at such time, if the curds begin to show in the discharges. Most surely should this be done, if vomiting follow feeding. Gentlemen will be astonished to find the effect of more water in the milk to be better than paregoric or astringent tinctures, in checking diarrhœa; but it is so. They will also find, after they have deprived the little one of fluid, because it is all thrown up as soon as taken, that if in place of medicine they will let the stomach be filled with cool water, it will come up with but little retching, and will be followed by a long respite from the straining which is sure to follow a teaspoonful or two.

Many will say to you, Use condensed milk. What is condensed milk? Why, milk from which a part of the water has been removed by evaporation and a part of the butter by skimming; or, if solid, there has also been starchy matter added to it. It is poor food for a child. When I say this, I am speaking of all condensed milk; both the imported article, and that which is prepared here. I am aware that fat and strong children can be shown, whose only food has been condensed milk. That proves only that some children can bear it. So some adults can digest articles which will produce pain and diarrhœa and vomiting with the great majority of adults.

The same may be said of arrowroot, and of the various preparations of corn and wheat, which are largely advertised as food for children. They are not the natural food, and those are the peculiar stomachs only, which can manage them.

The second summer is dreaded by most mothers. Why? Because their children, by the second summer, have learned to take other than their natural food; they have lost their taste for the natural food; a great change consequent upon dentition is going on; digestion is disturbed; and the child who has apparently exceeded in healthfulness and strength its companion, who has been allowed milk only, now begins to run the gauntlet of cholera infantum, dysentery, and convulsions. We are called upon to see the enormous percentage of children who die before the first dentition is completed, and to say why [illegible] time for cutting the cuspidati is so much worse for them. I can only say, gentlemen, try the experiment of confining a few children to the breast or to the bottle of milk. You will find enough examples of the others without asking for them. Were these children confined to the milk diet alone, the medicine needed by them would not be calomel and chalk, nor opium, nor kino; and the percentage of deaths among them would be smaller. The extra dilution of the milk would as a rule answer the whole purpose better than physic. I never saw a case of cholera infantum in a child who was kept, till the dentition was complete, upon breast milk alone or upon properly diluted cow's milk alone. I never saw such a child starve.

Before closing the remarks upon this subject, I must say a word about the apparatus for feeding with. The spoon is not the best. The drinking cup is not so good as the spoon. The food is swallowed too rapidly from either, and without becoming mixed, as it should be, with saliva. A common four or six ounce vial, which can be easily washed and rinsed, is the best apparatus. For a mouth-piece a bit of linen wound about a quill and put in place of a cork is good. It can be thrown away after being used once. The next best mouth-piece is a black rubber nipple stretched over the mouth of the vial. The white rubber makes some mouths sore. The long rubber tube with glass attachment at the inner end and a nipple at the other is the worst of all. You cannot keep it clean, and it only serves lazy nurses, who wish to feed the child without taking it from bed. The little brush which is sold with it is of very little use, and gets foul without cleaning the tube.

I know there are many who will laugh at the proposition to keep a child upon milk till its first sixteen teeth are through the gum; they will show you children who have fed upon boiled ham and meat pies before they had any teeth, and who have lived nevertheless. And others can show you men who have been shot through the head, and have lived; and a woman who while advanced in pregnancy was compressed between the seats of a railroad car by a locomotive engine, and yet has lived, and given birth to a living child. What does it all prove? Why, simply that mankind is tough — sometimes.

Keep records of your cases; and I believe that when you look back upon them, you will find it to be the fact that, however well those children appear who are fed upon other things than properly diluted milk, before the first sixteen teeth have passed the gum, more of the other class reach the age of five years.

VARIOLA CAUSED BY INFECTED PAPER-RAGS.

BY F. B. A. LEWIS, M. D. (HARV.), OF WATERTOWN, N. Y.

HAVING read the article in the JOURNAL of April 22, 1875, concerning a recent exanthema in Boston, I thought it possible that a notice of the cases of eruptive disease which have occurred in this city during the past few weeks might not be uninteresting in connection with the above-mentioned article. On the first appearance of the cases to be detailed, they were considered by me to be those of rötheln as described by Dr. Cotting and Dr. Swan, but they terminated in an undoubted form of variola.

CASE I. — On February 15th a call was received to attend a young lady, Kate D., who had been employed in one of the paper mills. On examination, she was found to have severe headache, vomiting, livid countenance, quick pulse, white tongue, constipation, inclination to sleep but inability to do so from cephalalgia. She was ordered bromide of potassium, aconite, and a cathartic. The following day the headache was less; the bowels had moved after repeating the cathartic, it having been once rejected. There was a small brown eruption on hands, not unlike that of purpura. The face was still livid and the fever continued in a less degree. The third day an eruption covered the face, arms, and shoulders, indistinctly crescentic in form, eyes slightly diffused, no discharge from nostrils. Cephalalgia and fever continued, but gradually decreased and the eruption fading ; she became convalescent upon the fifth day, and rapidly recovered. In this and in all the following cases there appeared, just before and during the eruption upon the skin, a shining eruption upon the velum palati, resembling that of varicella, although very much finer.

CASE II. — Addie C., a young lady about eighteen years old, and employed in the same mill as the last patient, was attacked the same day and complained of same symptoms except marked pain in the lower part of the back. The eruption occurred on the second or third day; it was like scarlatina, and was not distinct nor crescentic. The patient had epistaxis and menorrhagia, and died in four days. It was considered a case of scarlatina, and the certificate of death so returned accordingly.

CASE III. — Marcia L. was attacked on the same day as the others, with like symptoms, eruption occurring about same time; and after continuing as in Case I., first resembling measles in being crescentic in form, it gradually assumed a vesicular form, and the patient died on the 21st, or on the sixth day. This patient was working in the mill with the others. It was uncertain whether she had been vaccinated, as had been the previous cases and all that follow.

CASE IV. — A younger sister of last patient had the same symptoms in milder form, the eruption being slight, disappearing in two or three days, and recovery being perfect. She had been employed in the same mill up to the date of her illness.

Case V. — Louisa C., a young woman employee, had an eruption less crescentic in form than in the other cases, with two or three large bloody vesicles. There was slight epistaxis and menorrhagia. The patient was attended by the writer on the fifth day of the attack, no physician having been called up to this time. The patient became comatose, and died on the 22d, or the seventh day.

Case VI. — Mary J. M., a young employee, was attacked two days later than the last, with the same general symptoms. The eruption was very slight on the chest and face. The patient recovered rapidly.

Case VII. — Mrs. Bella W., a sister of the patient in Case I., was attacked on the 16th ; she had not been employed in the mill, but had visited her sister there for about ten minutes, a week or ten days previously. She had active symptoms, with more prominent eruption, followed by menorrhagia and death on the 23d inst., or the seventh day. This patient had been vaccinated four years before, and it had "worked well." Persons exposed to Cases I., III., IV., VI., and VII. were subsequently attacked, although quite a number resided in the same houses and were afterwards quarantined in them from fourteen to twenty-one days.

Three other cases, one female and two males, were attacked, but soon presented the variolous form of eruption ; their cases proved fatal.

A case of varioloid followed Cases II. and V. ; it ended in recovery. Cases of fairly marked variola followed the foregoing, and were communicated to others residing in the same houses, especially to infants; and in no cases did vaccination appear to prevent. One person well pitted from small-pox was attacked, and died.

Cases of scarlatina in adults have since occurred, and also cases resembling those mentioned in the Journal of April 22d. The last case in the practice of the writer was in the person of a young lady who had not been exposed, so far as she knew, to any eruptive disease; she had slight nausea, a furred tongue, an eruption covering the entire body, resembling scarlatina and measles; there were no catarrhal symptoms except slight watery condition of the eyes. She did not really feel sick, and recovered in four days.

Recurring to the first cases, they are supposed to have been caused by exposure to twenty bales of rags, which were brought from California ; ten bales having been received January 28th, and ten February 5th. These rags were sorted by twenty-one girls in one large room, seven of whom were attacked at about the same date. The superintendent of the room stated to the writer that these rags were moist, had a peculiarly disagreeable odor, and many bandages, poultices, and some entire articles of underwear, stained as though from the persons of invalids, were found.

The writer has observed that the vessel bringing these rags to New York city was not quarantined, that the bales were stored with many others, which were forwarded to the mills of another county, and although made into paper no complaint was entered. Some of the employees here who actually handled the rags were not affected, while others working in other material on the opposite side of the room succumbed to the disease; and even two or three who were in other parts of the mill, but who came into the assorting room upon an errand, took the disease. About forty cases have occurred in all, and thirteen or fourteen have died. The mortality was mostly confined to those first attacked.

This attack has appeared to be very irregular or mixed, and not in any way like the ordinary form of variola, as seen by the writer while in charge of the Quarantine Hospital of your city in 1860. Had the cases been attended by a single physician, and the fact that all the patients had been employed in a paper mill been known, possibly the disease might have been suspected earlier. But four days elapsed before notes were compared. However, no apparent harm was done by the delay.

I refrain from further comment upon the cases, as readers interested in the subject will see, without doubt, some instructive points in the time and mode of attack, the severity of some of the cases and the mildness of others, the strange recovery in the one and the malignancy in the other.

It appears also that even these hasty notes cannot fail to call the attention of the younger members of the profession to a possible source of a disease which, especially in the rural districts, brings panic among the people.

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RECENT PROGRESS IN DERMATOLOGY.

BY J. C. WHITE, M. D

The Effects of Venous Obstruction in the Skin. — Dr. Auspitz publishes in his *Vierteljahresschrift für Dermatologie und Syphilis*[1] the results of a long series of investigations he has lately made upon the action of venous obstruction upon the skin in health and in its various diseases, as well as upon the skin of the ears of rabbits, which are characterized by his usual indefatigable thoroughness and minute observation. His conclusions are of great interest in relation to cutaneous physiology and pathology, but we have room for only the briefest abstract of them.

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[1] 1 Jahrgang, 2 und 3 Heft.

Obstruction of the circulation in the superficial veins of the arm was produced by applying a ligature as for venesection; and some of the appearances thus caused in the skin, in healthy and diseased states, are well shown in the accompanying colored illustrations.

Diapedesis was thus produced in preëxisting and already developed centres of inflammation more quickly and strongly than in other parts of the skin. The inflammatory redness was much more pronounced about the edges of such portions, in consequence of the obstruction, than in the centre. In the eruptions of urticaria, erythema papulatum, lichen urticatus, eczema, and variola, there was likewise noticed an increase in the escape of serum in the centre, with elevation of its surface and a lighter color, while the borders of the efflorescence were generally darker in color. Suppuration was never excited or increased in consequence of the obstruction during its existence, although the fluid contents of vesicles were increased in quantity.

The Sweat Glands and the Action of their Secretion upon certain Metallic Salts. — Dr. Aubert has published an article [1] upon this subject based upon observations made by studying the impressions obtained by the application of the hand to sheets of paper impregnated with nitrate of silver, protonitrate of mercury, and various other substances. These impressions were of two kinds: dotted ones, produced by the hands after being carefully washed, in which each point corresponds to a sweat gland; and linear ones, produced by the unwashed hand, the lines corresponding to the ridges of the papillæ. By this new method of exploration Dr. Aubert comes to the following conclusions: —

The insensible transpiration is performed exclusively by the sweat glands.

The moisture is due not only to the constant discharge of the perspiration, but also to the presence of the deliquescent alkaline residue left by its evaporation.

The sweat glands, independently of their other functions, should be regarded as a secretory apparatus attached to the organs of touch.

This last view is of significance in connection with certain facts to which he calls attention: the inequality of the number of sweat glands in different localities, and their predominance in the palm of the hand and the sole of the foot; the inequality in their activity also in various parts; the persistence of secretion, and of its escape upon the hand and foot in spite of pressure; the relation of proximity of the sweat glands to the papillæ; finally, the acidity of the sweat at the moment of its secretion, and the alkalinity of its residue.

Psoriasis of the Tongue and Buccal Mucous Membrane.[2] — The following are the conclusions from the observations of Dr. Ch. Mauriac upon this affection:—

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[1] Annales de Dermatologie et de Syphiligraphie, vi., No. 2, from Lyon Médicale.

[2] Annales de Dermatologie et de Syphiligraphie, vi., No. 1.

Two elements are constantly observed in this chronic, inflammatory process: first, a sclerous inflammation of the papillæ and superficial layers; second, an epithelial hyperplasy, which condenses in the form of grayish, opaline patches, and which are cast off in the form of scales, consisting wholly of epithelial cells. The parts affected in order of frequence and gravity are the upper surface and edges of the tongue, the commissures of the lips, the internal surface of the cheeks, the internal surface and borders of the lips, the gums, and the arch of the palate. Several phases in the process are recognized: an erythematous period; a sclero-squamous period; the formation of ulcerations and fissures; slashing of the borders of the tongue, a mammillated condition, formation of islets, furrows, etc., resulting sometimes in cicatrices, sometimes in atrophy of tissue from pressure of the scales. The patches, bands, streaks, and scales have a gray, opaline, nacrous, or white chloride of silver appearance. In the syphilitic form the psoriasis-like element occupies a secondary rank, the principal lesions being the erosions, the ecchymotic, exuberant, horny, and other kinds of mucous patches, and the tubercles, the deep ulcers, and the gummata. The hypertrophy of the papillæ may be sufficient to form papillomata, which may be either benign or malignant, and it is by the transformation of the former into the latter that bucco-lingual psoriasis is converted into epithelioma. This is one of the most important points in its history. Mercury and iodide of potassium, when administered as a test of the nature of the affection, are very dangerous when there is no syphilitic element present, as they may hasten the epitheliomatous transformation and aggravate its malignity.

Considérations sur l'Esthiomène.— Under this title, Dauvergne (père) contributes[1] a long article upon lupus and its alleged connection with syphilis and the so-called dartrous diathesis. According to his views of treatment, suppuration is to be provoked in order that cicatrization may be accomplished by stimulating granulation. To this end he uses styrax topically, fortified sometimes by the addition of tincture of aloes or cantharides, or by some drops of creasote. This ointment, spread upon pledgets of lint, provokes suppuration more or less quickly, checks the formation of the indurated tissues, and induces granulation and, after a long time, cicatrization. The cicatrix is not very firm at first, and requires mild cauterization with nitrate of silver, and washings with alcoholic and aromatic solutions. When cicatrization is complete the cuticle is often disposed to break, and to strengthen it he avoids contact with liquids or fats, which soften it, and powders it with a mixture of silicate of magnesia and tannin, or pumps air over its surface several times a day by bellows. The use of caustics he considers injurious, employing upon the tubercles and indurated patches ointments of mercury or iodine, and bathing them with Lugol's concentrated iodine solution. He has never seen any benefit from the use of internal specific remedies.

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[1] Annales de Dermatologie et de Syphiligraphie, vi., No. 2.

Treatment of Lupus. — Hebra (fils) reports[1] the results of the treatment of the fifty-four cases of lupus vulgaris which were in his father's wards during 1873. Volkmann's new method of scooping was largely used, and with surprising success. The bleeding after the use of the instrument is very slight, and although the surface of the affected part may be covered with blood at first, so that it may be necessary to pause for a moment, the hæmorrhage is soon checked by a little dry lint. The cicatrix is much smoother and more like the skin than that which follows the use of caustics. The pain, too, is much less severe than that produced by cauterization, and instead of lasting for hours after the operation, as with the latter, it ceases as soon as the instrument is laid aside. After the soft masses of lupus new-growth have been removed by the scoop (and the operator soon learns to distinguish between the resistance offered by the healthy and the diseased tissue), cauterization or scarification is often resorted to for the destruction of the minute seams of infiltration which radiate from the centres of growth, and of the enlarged vessels.

The scoop was used with the same favorable results in four cases of lupus erythematodes also. In one of them the patient had been affected for twelve years, and after the disease had been thoroughly scooped away the parts were rapidly restored to a healthy condition. The cicatrix could scarcely be distinguished from the surrounding skin.

The Concurrence of Lupus and Cancer. — Professor Lang, of Innsbruck, reports[2] an interesting case of these two processes occurring simultaneously upon the face of a young man; the lupus, however, according to the general rule in this affection, dating back to childhood, while the carcinomatous growth was of a year's duration only. After death, which took place within two years after the appearance of the malignant process, cancerous masses were found connected with the internal organs also. The local progress of the carcinoma seemed to be greatly facilitated through the loose and softened tissue of the lupus, so that it extended much more rapidly and widely than in ordinary cases. The concurrence of two distinct pathological processes, which are both prominently characterized by disintegration of tissue, tends to bring about a still more rapid and extensive destruction, inasmuch as the low vitality of the cancer cells is still further reduced by the subordinate value of the lupous stroma as a base of nutrition.

The concurrence of cancer and lupus is rare, and is not to be confounded with the development of cancer about cicatrices which mark the seat of lupus long healed, just as in connection with the scars from other destructive processes. The concurrence of epithelioma and lupus, or the transformation of the latter into the former, is much more common.

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[1] Bericht der Klinik und Abtheilung für Hautkranke.

[2] Vierteljahresschrift für Dermatologie und Syphilis, 1 Jahrgang, 2 und 3 Heft.

The Nature of the Giant Cells in Lupus. — The meaning of these so-called giant cells, which are found in lupous, scrofulous, and tuberculous growths, has been variously interpreted by observers, and efforts have been made to prove the relationship of these affections on account of the common presence of these cells. According to the views of Professor Lang[1] these bodies are merely the expression of retrogressive metamorphosis *en masse*, affecting all the tissues. Their presence, therefore, in no way indicates that these affections are alike, but merely that they are capable of the same form of degeneration. In their later stages these bodies may be converted into granular masses, which may undergo absorption, or lead to ulceration. In the former case, inasmuch as the process may affect the papillæ and follicles, the skin will sink in, lose its normal protuberances which are due to these, become smooth and glazed, and in fact assume the appearances of a scar without the occurrence of ulceration.

The Etiology of Leprosy. — Dr. Hauser,[2] assistant physician to the Leper Hospitals at Bergen, contributes a long article, in which a full account of the condition of this disease in Norway at the present time is given, and argues from the data he has collected that leprosy belongs to "the category of specific diseases which are contagious, but, like specific diseases in general, are not transmitted by inheritance."

(To be concluded.)

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PROCEEDINGS OF THE NORFOLK DISTRICT MEDICAL SOCIETY.

ARTHUR H. NICHOLS, M. D., SECRETARY.

January 15, 1875. — DR. R. T. EDES in the chair; and afterwards, DR. DAVID S. FOGG.

DR. GEORGE FAULKNER read a paper upon The Pathology and Treatment of Jaundice, the regular subject for discussion.

DR. H. P. BOWDITCH presented some microscopical sections of the liver in which the blood-vessels were injected red and the gall-ducts blue. The specimens showed very clearly the relation between the gall-ducts and the hepatic cells. Dr. Bowditch remarked with regard to the physiological view of the question, that the constriction of the gall-ducts undoubtedly furnished a very common cause of jaundice. And yet the fact that the passage of a gall-stone is not invariably accompanied by jaundice has been regarded as a proof that a simple obstruction of the gall-ducts does not necessarily produce a reabsorption of the bile. A consideration of the anatomical relations of the ducts seems to show, however, that it is not impossible for a gall-stone to find its way from the gall-bladder to the intestine without at any time causing a sufficient obstruction to throw the bile back upon the liver. As long as the stone is passing the cystic duct, the bile has, of course, a perfectly free passage through the hepatic and common ducts into the intestine. When the stone becomes engaged in the common duct, the passage into the intestine is closed, but the bile can now pass through the cystic duct into the gall-bladder. If the passage of the stone through the common duct is not too prolonged, there seems to be no reason why the bile formed at this period should not be accommodated in the gall bladder, provided this receptacle be not already too full.

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[1] Vierteljahresschrift für Dermatologie und Syphilis, 1 Jahrgang, 2 und 3 Heft.

[2] British and Foreign Medico-Chirurgical Review, April, 1875.

If we accept the views of Schiff on the physiology of the biliary section, we are furnished with a possible explanation of those cases of jaundice in which there seems to be no reason for assuming the existence of an obstruction of the gall-ducts. As the result of many experiments on animals, Schiff has reached the conclusion that a portion of the bile poured into the intestine by the liver is absorbed unchanged, and carried by the portal vein to the liver to be there excreted, and again poured into the intestine. The liver has thus a double function, namely, to form bile from the materials contained in the blood, and to excrete the bile brought to it by the portal vein. Under normal circumstances the liver removes the bile so completely from the blood that none of it appears in the general circulation; but if for any reason a greater quantity of bile than usual is absorbed from the intestine, or if the excreting power of the liver is diminished, we should naturally expect that a portion of the bile would find its way through the liver to the hepatic vein, and thus reach the general circulation. A small amount of bile thus finding its way into the blood is regarded by Dr. Brunton as the cause of those symptoms which are commonly classed together under the term "biliousness," and the relief of which by the exhibition of mercury is explained by the fact that this drug acts mainly on the small intestine, and thus removes the bile from the alimentary canal so rapidly that it has no opportunity of being absorbed. The presence of a larger amount of bile would naturally cause all the phenomena of jaundice.

In some recent experiments by Fleische, it has been found that if the lymph is withdrawn from the body of a dog by means of a canula placed in the thoracic duct, there is no accumulation of biliary salts in the blood of the animal as the result of tying the common bile-duct, while the lymph which flows from the canula contains a considerable quantity of these salts. This seems to show that in jaundice, by reason of the obstruction of the bile ducts, the absorption of bile into the blood takes place not directly but through the medium of the lymphatic system.

Dr. Fifield thought it was pretty generally conceded that all cases of jaundice could be referred to one of two classes: (1.) Jaundice arising from mechanical obstruction, causing retention or non-elimination of the bile. (2.) Jaundice not produced by obstruction. Instances of the former class are comparatively limited in number, while the latter of these forms comprehends a group of varied lesions, and opens a wide field of speculation. The old and commonly received theory that jaundice is generally induced by obstruction of the gall-duct, and is therefore to be removed by the administration of certain specific agents, such as mercury, is quite at variance with modern experience. It is no longer a matter of doubt that manifold causes may contribute to produce this phenomenon when no obstruction whatever can be detected. It is a frequent accompaniment of diseases of the liver, pancreas, duodenum, etc., and is particularly observed in cancerous disease of those organs. It is a concomitant of acute yellow atrophy of the liver. The existence of acute jaundice in women in the latter stage of pregnancy, having not unfrequently a fatal termination, is one of those complications the pathology of which is still obscure. There are certainly a great many cases of this class that cannot be referred to the pressure of the gravid uterus upon the gall-ducts or gall-bladder. A careful consideration of the matter had forced upon him the conviction that many affections characterized by jaundice induced symptoms analogous to those in uræmia, and it would seem therefore not impossible that disease of the kidneys might be associated with an accumulation of the bile-pigment within the blood, thereby staining the various tissues of the body. He alluded to the doubtful pathology of icterus neonatorum, and also to the class of cases in which jaundice appears to prevail in epidemic form, and in conclusion related the history of a family wherein icterus had appeared in several children shortly after their birth, under circumstances which led him to infer that this symptom might be the result of congenital syphilis.

DR. FOGG remarked that as the result of his observations in practice he had been led to believe that, in a great majority of cases of jaundice of all varieties, there exists a suppression or non-elimination of the bile, or, in other words, there is a disproportion in the production of the constituents by the liver. One of the functions of the liver is to remove noxious matters from the blood. Among these substances is the yellow principle upon which the color of the bile depends, and which is probably formed in the blood. As the result of some morbid change, the secretory functions of the liver may be impaired or suspended, by which means the yellow matter is accumulated in the circulation. This accumulation of pigment, if not got rid of in some manner, might tend to derange some of the vital processes. Nature appears to have provided a safeguard from this danger, by rendering almost all the other secretory functions ensible to the stimulus of the yellow matter in excess, and capable under this timulus of separating it from the blood. Thus the bile pigment is eliminated by the kidneys and skin, and deposited in the various tissues, imparting the haracteristic hue to the various substances with which it is brought in conact, while clay-colored fæces indicate its absence from the intestines. He expressed the belief that in a great majority of all cases of jaundice, there is no eason whatever to suspect the existence of any mechanical obstruction, and ited a number of cases occurring in his practice in which post-mortem examinations demonstrated the biliary passages to be perfectly free, and the liver exempt from organic disease. Moreover, in jaundice not connected with nflammation or organic disease of the liver, there is no distention of the gall-bladder or liver, such as would of necessity result from obstruction with a continuance of secretion. He regarded the result of ordinary treatment as furnishing further evidence that these views of the pathology of this process are correct; since the most efficient remedies are those which promote the secretion of bile. In cases, however, where obstruction is actually known to exist, it seemed to him very doubtful whether bile having once been secreted from the liver was capable of being reabsorbed by the blood, it being much more probable that where there is obstruction and consequent retention, the pressure made by the accumulated fluid upon the vessels serves to interfere with the process of secretion, and thus prevents the due elimination of coloring-matter from the blood. Hence these forms of jaundice are to be referred to a deficiency of secretion, rather than to reabsorption. He called attention to the fact that the bile-pigment may be formed from the free coloring-matter of the blood, without the action of the liver, artificial jaundice having been produced in animals by injecting substances that dissolve the blood-corpuscles. Hence, as stated by Niemeyer, some of the formerly enigmatical classes of jaundice are due to the disintegration of the blood-corpuscles, and the transformation of the free coloring-matter circulating in the blood into bile-coloring matter. This explanation of the origin of the bile-pigment will enable us to understand the cause of the excessive production of that substance in jaundice supervening in certain acute and chronic diseases of the liver and other organs, where a rapid disintegration of the blood and tissue takes place, the functional activity of the liver having been impaired by the original disease.

DR. FORSAITH read a paper upon the subject, of which the following is an abstract: —

Whether we consider jaundice as a definite disease, or as only a symptom of certain abnormal causative conditions, we may discuss it under two general divisions, namely: (1.) The hepatogenous jaundice (Niemeyer), or the jaundice from obstruction of most authors, comprising a large majority of all the cases with which we meet, and occurring from some direct or indirect hepatic derangement. (2.) The hæmatogenous form, or jaundice without obstruction, comprising a minority of cases and arising primarily from some derangement of the blood. In considering the first general division, we may say that whatever produces closure of or pressure upon the biliary ducts, to any considerable extent, will necessarily produce jaundice. Among the causes producing pressure we may instance fæcal accumulations in the colon, tumors, aneurisms, plugs of inspissated mucus, congestion of the blood-vessels of the liver, tuberculosis, hyperæmia, degeneration of the lymphatic glands in the fissure of the liver, foreign bodies that have entered the ducts from the duodenum, adhesions between the walls of the ducts, and many other causes. Cirrhosis, cancer, and hydatids sometimes produce pressure upon the ducts, and sometimes do not; so we may, or may not, have jaundice consequent upon those affections. It is said upon good authority that in more than one half the cases of cancer of the liver there is no jaundice, and the same statement is true of suppurative hepatitis.

But among all the causes of jaundice there are two observed much more frequently than all others. The first of these is acute catarrhal inflammation of the mucous membrane lining the bile-ducts; the second is obstruction of the ducts by biliary calculi.

The catarrhal inflammation, when it extends to the liver, may involve only the hepatic and common ducts, or it may extend far up in their course. As a rule, it extends quite a distance towards the lobules of the liver.

The second division of jaundice, the hæmatic, the hæmatogenous, or jaundice without obstruction, occurs either from some poison acting directly upon the blood, or as a consequence of jaundice of the hepatogenous variety.

This kind of jaundice may also be induced artificially in animals by injecting nto their blood substances that dissolve its corpuscles. It is also produced by certain influences acting directly on the blood. Of these we may instance pyæmia, puerperal, typhus, relapsing, remittent, intermittent, and yellow fevers, epidemic influences, snake bites, alcohol, ether, chloroform. The pathology of this form of jaundice is simply the pathology of the various conditions producing it.

Treatment. — We may conveniently class our cases in reference to treatment under three heads, according to their pathology: (1.) Those which will inevitably run on to their ultimate fatal termination. As an example of this class we may instance the jaundice caused by acephologysts, cirrhosis, carcinoma, — in fact, any cause producing permanent occlusion of the biliary ducts. Our treatment, generally, can be only palliative, relieving from pain and sustaining the vital forces. According to Roberts, it has been proposed in some cases of permanent obstruction to make an artificial fistula into the gall bladder, having first excited adhesion with the abdominal walls by means of escharotics. (2.) There is a class of cases which may be denominated doubtful. I mention as instances of this class jaundice occurring in the various forms of fever, after snake bites, in pyæmia, in abscess of the liver, and in certain other states. The treatment of cases of this kind is the same as that of the various diseases on which they depend. (3.) This class comprises those cases in which there is no organic lesion, and where we may reasonably hope for recovery. If we accept those views of pathology to which I have before alluded, and which are now generally entertained, the treatment of most cases of this class will simply resolve itself into the treatment of obstruction of the ducts from two causes, namely, biliary calculi and gastro-duodenitis.

The specific indications are as follows: (1.) To attend carefully to the diet, supporting the patient by nourishing food and suitable tonics, and avoiding fatty substances as well as starch, sugar, and alcohol. (2.) To supply a substitute for retained bile, in artificially prepared ox-gall, in from five to ten grain doses, two or three hours after meals. (3.) To promote renal and cutaneous secretions. (4.) To resort in inflammatory conditions of the liver to leeching, or counter-irritation, or both. (5.) To give an occasional laxative f there is constipation, as mineral spring water; or, if there is impaction of fæces, manipulate with the arm introduced into the rectum. (6.) If the jaundice is caused by impaction of biliary calculi, to relieve the pain by inhaation of sulphuric ether and by the hypodermic injection of morphia. (7.) To avoid calomel and all drastic cathartics. (8.) To bear in mind, as stated by high authority, that catarrhal inflammations are self-limited, unless the stimulus which produces them is kept up.

One practical point in this discussion is this: Jaundice is dependent on two kinds of morbid action in the liver; one kind is susceptible of cure, the other is not. If we are satisfied that the jaundice is dependent on any functional derangement, producing pressure on the bile-ducts, we may with confidence prognosticate recovery. If from the history of the case and an intelligent examination we are convinced that the jaundice arises from organic changes, we may with equal certainty express an unfavorable opinion. The disease varying in the rapidity of its fatal termination according to the character and severity of the condition producing it.

Dr. Edson read a paper entitled Lead Poisoning among Operatives in Lead Factories.

Dr. Arnold made a verbal communication, reporting a case of paralysis in a young girl, supervening upon a simple ulcerated sore throat, the symptoms corresponding in all respects with those which are well known to occur among the sequelæ of diphtheria.

The paralysis appeared first in the muscles of the throat, then in the recti externi of both eyes, and finally in the muscles of the lower extremities; disappearing in the same order in the course of a fortnight.

RIDES FOR CONVALESCENTS.

During the warm season of the last two years the board of government of the Boston Young Men's Christian Union has furnished carriages to the various hospitals of the city, so that many of the patients were enabled to enjoy a ride in the country, and derive the benefit of the fresh air as they could not otherwise have done. This charity has not only been extended to the inmates of hospitals, but has also included many an invalid living in circumstances too limited to allow of such an indulgence.

To enable the Union to meet the expense thus incurred, a public appeal for special donations was made, as of course the furnishing of rides for convalescents does not legitimately belong to the work of the Union. Heretofore a generous response has been always made to the call of the Union for this special donation, and now that the board of government is issuing its third annual appeal, we can but express the hope that a larger sum than ever will be contributed, in order that a still greater number of the convalescents in our hospitals may be the recipients of a charity which is so wisely and judiciously exercised.

PHARYNGOTOMY.

The successful removal of a foreign body impacted in the pharynx, by the operation of pharyngotomy, being the first case of the kind in Ireland, has been recently accomplished by Dr. W. I. Wheeler, who reports the case to the *Medical Press and Circular* of April 14, 1875. The patient, on November d been sewing a button on his trousers, and having put the needle in uth, eye foremost, it slipped down into his throat. He endeavored to ıw it by the thread, but was unsuccessful. Two days later, on his ad- ı to the City of Dublin Hospital, his face was full and flushed, and there skiness of the voice not unlike that of acute laryngitis. Laryngoscopic ation showed the needle, somewhat obliquely situated, the eye end ouried in the left palato-pharyngeus muscle, the point in the left aryt- artilage. Various attempts having been made to remove the needle, thout success, the patient meanwhile growing weaker, suffering intense nd constantly importuning to have the needle cut out, it was determined vember 23d to operate. The patient having been brought under the ce of chloroform, Dr. Wheeler made an incision on the left side of the ommencing from the body of the os hyoides, to the superior margin of coid cartilage. Each layer of fascia was cautiously divided, and the n external and the internal carotid artery came into view, also the r thyroid artery and the superior laryngeal nerve, with a few descend- ıments of the twelfth nerve. The attachment of the omohyoid muscle xt separated, and the vessels retracted and kept to the outside. A staff en passed into the mouth and pharynx, causing the latter to bulge to t side, and at this prominent point a small incision was made to allow of the index finger to pass. The staff was now withdrawn and the g already made enlarged upwards and downwards with the fingers. onsiderable search the needle was found and withdrawn. No sutures ut in the gullet, but the edges of the wound were brought towards one r with a few points of carbolic suture. The man was speedily conveyed a piece of lint soaked in carbolic oil was laid over the wound, and a e of bread and milk placed over the abdomen. Nutritive enemata rdered to be administered during the day, ice to suck, etc., and a sponge in iced milk was occasionally squeezed on his lips. The recovery of tient was without serious drawback; on the 6th of December the milk to come through the wound, though before this date some fluid escaped h the wound when taken by the mouth. December 19th he was dis- d well.

following practical points in connection with the operation are men- by Dr. Wheeler: (1.) To arrest hæmorrhage from the small vessels ırily severed immediately, so as not to obscure any of the parts to be l, which should be well examined before being cut. (2.) To have the well retracted. (3.) To have a staff put into the pharynx from the to make a bulge. (4.) Not to pass a knife into the pharynx to enlarge ening up and down, lest the filaments of the nerves be wounded. (5.) ıtient need not of necessity be fed with a tube. (6.) Should the thyroid appear, not to mistake it for the gullet. (7.) To operate on the left the neck, being more convenient to the surgeon, unless the foreign bulky and bulges on the right.

MEDICAL NOTES.

— In connection with the preparations for the meeting of the Masachusetts Medical Society next week, we have been requested to invite the attention of gentlemen who visit the Massachusetts General Hospital to the new pavilions which have been constructed during the past year. It is believed that they combine the requisites of ventilation, light, and space better perhaps than has yet been anywhere accomplished.

During the last year the trustees have also erected an amphitheatre for autopsies, which is, without doubt, better adapted to its purposes than any now existing. Besides the arrangements for the comfort of the students, the museum curator's room, etc., there is a ventilated sink, and a ventilated table, which are well worthy the examination of those interested in such matters. The latter is a rotating table which combines drainage and ventilation.

These contrivances, combined with the admirable ventilation of the hall itself, are found in practice to render a common autopsy odorless. This result will be specially appreciated by those familiar with the usual accessories of post-mortem examinations.

— Nine well authenticated cases of poisoning by the homœopathic solution of camphor have been published from time to time in the *British Medical Journal*. This solution contains about a grain of camphor in every two drops, and in doses of fifteen drops and upwards it acts as a strong poison. Some doubt having been expressed by a physician whether camphor was really the cause of the symptoms in the cases reported, from the fact that he had taken the drug in three-grain doses with no other than a beneficial effect, the *British Medical Journal* replies: "It is a well-known fact that the action of a poison is, *cœteris paribus*, in direct proportion to its solubility. Camphor being very insoluble in the fluids of the canal when given in the form of a dry solid, is in great part eliminated without being absorbed, and has little medicinal or poisonous effect; but when taken in the form of a spirituous solution it is much more readily absorbed, and in a corresponding degree more active."

— Attention is called in a recent number of the *Medical Times and Gazette*, by A. Clarence Foster, M. R. C. S., to the external use of the tincture of iron in erysipelas and other forms of local inflammation. It is stated that in scrofulous swellings of the neck its discutient properties are far superior to those of iodine, and where a puerperal breast, or inguinal gland in the male, has threatened to end in suppuration, the early use of the tincture, every other day or so, with a camel's-hair brush, has been sufficient to effect resolution. The remedy may be advantageously applied to swollen and painful joints in acute rheumatism, to the inflamed surface surrounding an unhealthy ulcer, or along the course of absorbents when irritated by a recent, ill-conditioned wound, or in cases of ringworm, for which ink as a domestic remedy has long enjoyed a popularity which was not altogether undeserved.

— The *British Medical Journal* mentions a verdict of manslaughter returned against a midwife. The evidence showed that she had attended a large number of confinements, and had conveyed puerperal fever to the patients. On the 18th of December she was cautioned by the coroner to cease from practice, but did not do so. Since then, two inquests have been held on fatal cases she had attended. At the first inquiry the defendant was censured, and was then committed to take her trial on a charge of manslaughter. Four other cases of puerperal fever have proved fatal. The case is one which presents features of obvious importance. The same journal says, "The principle affects medical men not less than midwives. Is it certain that puerperal fever is contagious? Supposing it to be so, is a person who conveys contagion to a patient open to conviction of manslaughter? Such a case raises questions highly important in science and very momentous in practice."

— Dr. Hess in a Swiss journal reports a case of luxation of the right testicle. An artilleryman, thirty-one years of age, was knocked over by the rebound of a cannon and was found lying upon his face unconscious, his sabre between his legs. On his return to consciousness a small tumor was discovered in the upper part of the thigh, and was supposed to be caused by an effusion of blood. Two days later, on a more careful examination, the right testicle was discovered underneath the skin on the inside of the thigh, at a level with the lower border of the scrotum. It could be moved upwards but was very painful. The right side of the scrotum was empty. At the end of a few days the reduction of the displaced organ was effected. The author thinks that the testicle was displaced by being pushed back to the inguinal canal, and in consequence of the resistance offered by the sabre could not return to its place but was pushed under the skin of the thigh.

— Mr. R. E. Dudgeon, in reply to a recent article in the London *Lancet* on Homœopathy, says: "We do not assume the name objected to; it has been bestowed upon us, and most inappropriately, for it refers only to a portion of our practice. The sole difference between you and us is that we are medical men who hold ourselves free to avail ourselves of all the resources of therapeutics, including homœopathy; while you profess yourselves free to avail yourselves of all the resources of therapeutics except homœopathy. Having always felt that the names 'homœopath' and 'allopath' were nicknames, we shall only be too happy to abandon them. Cease to call us homœopaths; acknowledge our right to practice medicine according to our judgment; throw open your hospitals and dispensaries to the competition of all without distinction of medical creed; and you will see a rapid extinction of homœopathic journals, dispensaries, hospitals, societies, and directories." The editor of the *Lancet* in commenting on these remarks says: "It is not a little curious that the death-blow of homœopathy should be dealt by one of its reputed heads in the country. We congratulate Dr. Dudgeon, the English translator of Hahnemann's Organon, on the courage he has displayed, especially at this juncture, in publicly renouncing the name of homœopath, and in acknowledging that he avails himself of all the resources of therapeutics, including homœopathy. What we have all along complained of is that there is a class of medical practitioners who do assume a name that is calculated to mark them from the body of the profession. Let these practitioners erase the name of homœopath from their writings, their hospitals, and their societies; let them undeceive the public by openly declaring, as Dr. Dudgeon has done, that they do not exclusively practice homœopathy, and that they do not even believe in the general applicability of the system; then we also shall cease to make use of the opprobrious epithet."

— The so-called "Philadelphian M. D." who was lately fined for practicing illegally in Scotland has, on appealing to another court, had the sentence suspended on technical grounds. While we cannot but regret that adventurers of this kind are not suppressed with such promptness as to discourage the traffic in bogus degrees, we regret also to see the tone persistently assumed by our English contemporaries in cases of this character. Such expressions as "and yet because of some alleged want of clearness, not in the facts of the case, but in the mere statement of them, the Scotch judges reverse the sentence of the magistrates and give a sense of triumph to Philadelphian doctors" can only be interpreted as a willful intention on the part of the writer to mislead the English public as to the character of the medical profession of Philadelphia. In view of the oft-repeated explanations in regard to the character of the so-called "Philadelphia University," we are sorry to see any journal continue to confound it with one of the most distinguished schools in this country, the University of Pennsylvania.

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LETTER FROM PARIS.

Messrs. Editors, — The schools and hospitals of Paris, like the chestnut-trees in the squares and gardens of the great city, are bursting into full leaf. Clinics and courses on all conceivable subjects connected with medicine and surgery abound. Now the free professor of the École de Pratique displays all his literary ware, bidding for future practice as consultant, or keeping his name well before the public in case of a vacancy in his line at some hospital. Now the professors of botany announce their coming expeditions into the country, where the *élèves*, like a cloud of locusts, devour every green thing, and, I fancy, gossip more about the faces and figures of the country girls, and the last ball at the Bullièr, than of stamens and pistils, corollæ and chalices. At the Charité I have to some extent followed the clinics of Professor Gosselin, who still treads the stage with a firm, assured step. I have been delighted with his acuteness of diagnosis, and the plain, matter-of-fact way in which he delivers his lectures. In figure and face Professor Gosselin reminds one of the Hon. Benjamin Butler, and one comes away from his clinic ready to admit, without reservation, that one has been in the presence of a man of genius; in short, as the so-called representative American would probably class him, "one of the most remarkable men of our country, sir." At one of my first visits with him, I was particularly struck with his diagnosis of a case of gonorrhœal rheumatism, so quickly made and so fully sustained by the history of the case, as drawn out by skillful questioning. At the clinical lecture the professor stated the diagnostic points to have been the severity of the pain, its duration (several weeks), and its localization in one joint, namely, the left knee. Another most interesting case was that of a person who had been attacked on the thirteenth day of a typhoid fever with gangrene of the right leg, in spite of some threatenings of gangrene of the left limb. Professor Gosselin had amputated in the continuity of the right thigh. In his first lect-re M. Gosselin said that the amputation had been "*à la sec*," no blood having been given from the arteries, that the case was doing well, and that he hoped hat sufficient blood would arrive by anastomosis to nourish the stump. M. Gosselin went on to discuss the causes of this gangrene of limbs, etc., in typhoid, and stated that although some writers had attributed this spontaneous gangrene to emboli wandering from the heart, yet he still held to the theory of Dupuytren, that the cause of the embolus was the inflammation of an artery; hus, first the arteritis, and then the plug. As your correspondent, in a paper on this subject of gangrene in typhoid, read before a certain club, had sustained exactly the reverse of this, you may understand his anxiety for the result. At the next clinic M. Gosselin announced that the patient was dead (the other imb having mortified), and that he would show the specimens. "Eh bien, mesieurs, although I stated that the theory of wandering emboli was somewhat absurd and irrational, behold the heart. Not only are the aortic valves covered with colorless clots, but the very muscular parietes are altered, presenting that orm of myositis sometimes observed in the calves of the legs and other muscular parts in typhoid. Here is the spleen, showing numerous yellow spots of inarcti. Here the kidney, showing the same thing; and here are the two common iliac arteries choked with a coagulum which extends a little way into the aorta. *Voila tout!*"

In a case of tumor of the breast of an unusual character, seen at the visit of Thursday last, and reviewed by the professor at the clinic, M. Gosselin placed he diagnosis of gummous tumor, and ordered a specific treatment. M. Gosselin stated that, invited to an operation by a *confrère* for a tumor situated in his region, he had instituted a specific treatment with most satisfactory results. shall watch this case with interest.

At St. Louis, M. Péan is doing a deal of work, and is much followed; in oint of fact, there is too large a following, and I attribute to my visit a horible cold which I am just recovering from. M. Péan's first operation was for he extraction of cataract; he declared that while Graefe's knife was pretty ood in the hands of a specialist, yet every practitioner was not possessed of ufficient skill to use it. He therefore had had *confectioned* by M. Mathieu a nife and an accompaniment that he hoped the whole world could use. It was triangular knife, very like those used for iridectomy, and a needle channeled ke a director. This needle had a stop to prevent its entering too far. The eedle is passed through the cornea; the triangular knife is then placed in the roove and pushed along until the corneal section is accomplished. It seemed o me a cumbrous apparatus. I think M. Péan had some fear also, for he poke of the small eye and the overhanging brow; he dwelt too, with warmth, n the aggravation that the undue elongation of the unhappy man's nose aused him. The victim was, however, made ready, the spring speculum inerted, and the needle passed. Now occurred a series of difficulties. As the queous humor escaped the cornea became flaccid; M. Péan remarked that the onjunctiva rolled in folds over it, absolutely like the membrane which some owls possess. After a long time, during which M. Péan, assisted by his two ids, with forceps, wrestled like Jacob with the angel, excepting that Jacob ad no aids, the knife was carried through, and the cataract obtained. What there was of it was placed on a napkin and handed round. Its appearance reminded me of the remark of a London barber to the man who had had his hair cut in the country: "Bit hoff, sir, bit hoff!" for its anterior surface was deeply gouged in two places. Much blood had flowed. A Danish gentleman remarked to me that a knife and fork would have been better.

At La Pitié, M. Verneuil has operated for empyema with the galvano-cautery knife with success. He has also exploited before the Paris Society of Surgery his new plan of leaving forceps on arteries without ligature. This he calls *forcipressure*, and in a long communication (very good, by the way) which runs through two or three numbers of the *Bulletin Chirurgicale*, he cites every authority under the sun (excepting poor old John Bell, who said a great many years ago, speaking of a wounded artery in the operation for stone, "If the artery bleeds, leave the old forceps in the wound"), to prove that no one had distinctly formularized the use of forceps in this matter.

Whilst speaking of M. Péan I should have been reminded of M. Mallassez (as one is always reminded of M. Vulpian by thinking of M. Charcot), to mention the very ingenious instrument contrived by him for counting the globules of blood. This promises to be of value in some diseases; for instance, M. Mallassez has established as a mean that in a state of health man has 4,500,000 red globules to the cubic millimetre. Now in some cases of lead poisoning he has found the number of red globules to descend as low as 2,200,000 to the cubic millimetre, and making an average of eleven cases of lead poisoning he has found the red globules to be one and one half times less numerous than in a state of health. I commend M. Mallassez's instrument to the attention of your readers who use microscopes.

At the Hospital of the Midi your correspondent has been most hospitably entertained by M. Charles Mauriac, who has made this hospital, which he says when he took it was considered worn out by the continual cultivations of Messieurs Ricord and Cullerér, who had plowed and harrowed it for so many years. M. Mauriac, however, has digged about it, and has made and is making it yield excellent fruit. M. Mauriac is known by his publications on various subjects connected with syphilis, particularly in regard to precocious accidents affecting the osseous system, paraphimosis, etc. In regard to paraphimosis, he has given a very great push to the triumphal car of conservative surgery by showing that it is one of the self-limited affections which, when irreducible, may be safely left to itself, nature making the circumcision. M. Mauriac is now working up the nervous affections in syphilis. I think this week or next he will commence his lectures beneath those *tilleuls*, or linden-trees in the hospital grounds, those *tilleuls* made so famous by Ricord, who instructed the generations beneath them.

At the Lourcine, M. Fournier is making ready for his course of lectures on visceral syphilis. He is quite proud of his hospital, especially of the museum, concerning whose excellence he expatiated until my mouth watered (salivation?). I demanded to be instantly shown this museum, but M. Fournier replied that it was "en voie de démolition" in order to be thoroughly renovated. Thus my hopes were dashed. At my last visit I saw one of those cases of syphilitic coloration so closely simulating the moth, or chloasma of pregnancy, or pityriasis versicolor, and two of those curious cases of cutaneous anæsthesia which M. Fournier has pointed out in his great work on the effect of syphilis, especially in women. He distinguishes this syphilitic anæsthesia from that known as hysterical anæsthesia by these points: first, in the hysterical form, one side of the body, commonly the left, only is affected, whilst in the syphilitic variety both sides are equally invaded; secondly, the palms of the hands and the soles of the feet are exempt. In these two cases I saw M. Fournier push pins deeply into the breasts without causing the least sensation to the patient. The opponents of M. Fournier declare that these cases *are* hysterical; that were his doctrine true they should be met with equally among men as among women.

One of the most interesting hospitals of Paris to visit is that of Neckar. The museum, though small, yet contains many interesting specimens, notably of all sorts of calculi; many of enlargement of the prostate, with deviations of the urethra to the right or left, and enlarged prostates hiding calculi behind them. One specimen I noticed as peculiarly interesting, namely, separation of the whole mucous membrane of the bladder; another was of a double bladder, the left ureter entering into one bladder, the right into another. The two bladders communicated by an opening of the size of a franc. In my next letter I will give you some account of the chloroform and ether war here.

W. C. B. Fifield.

Paris, *April* 19, 1875.

LETTER FROM PHILADELPHIA.

Messrs. Editors, — The venerable Dr. Condie, mentioned in one of my recent letters, is now dead. In the day of his activity he was a man of note. His practice was large, and yet, until old age enfeebled him, he insisted upon attending to his large practice on foot. He entertained a singular contempt for physicians in their vigor who kept carriages, probably taking "no note of time," not even its loss. His work on Diseases of Children was highly valued in its day.

It pains me to learn the death of Hubert von Luschka, Professor of Anatomy in the University of Tübingen, Würtemberg. He was still a comparatively young man, and although he spent his best years in the little town where he died, he was connected with a flourishing university (the same in which Niemeyer held the chair of practice, now occupied by Liebermeister), and did noble work during his professorship. All his published works are on a grand scale. His imperial quartos on the larynx, and on the pharynx, his Brust Organe, and Bauch Organe, are superb evidences of his power and skill as an anatomist and prosector. His work, too, on general anatomy, is one I value highly. Whatever he published was the result of original research. The extremely fine plates in all his books are the work of an artist whom Luschka kept in his employ, and who copied them with fidelity from dissections made by Luschka's own hand. So long ago as 1858, when Bamberger published his work on the heart, Luschka's descriptions of that organ were considered the best, and Bamberger used them largely. Luschka's studies upon the anatomy of the heart were made upon the frozen body. Hence, and because of their exactness, they are invaluable.

I have the pleasant memory of a visit to Luschka in 1872, during a stay of some weeks in Tübingen. I found him in a quiet, sunny room, crowded with books, himself wearing a rough, gray jacket trimmed with green,—the stereotyped shooting-coat of the Germans. I shall not soon forget the cordial, genial warmth of his reception. When I entered he was writing the text of his splendid work upon Die Lage der Bauchorgane, which is uniform in size with Die Lage der Brustorgane, the plates being nearly of life dimensions. He showed me the drawings made by his artist for the forthcoming work. With charming simplicity he spoke of the probable usefulness of the work, and with modest pride alluded to the beauty of the plates in books already published. I saw, however, that he felt his works had not been sufficiently appreciated, for he very gently expressed his disappointment that they were not better known in England and America. To this day I do not understand why his publications have been so little used unless their expensiveness be the reason. I recall, too, that Luschka expressed great mortification concerning the flurry over the Löstorfer corpuscles. Before I left him he invited me to visit the anatomical museum of the university with him on the following morning, at the close of his lecture, which began at six o'clock! It was then that I saw the superb collection of his dissections of the larynx, which I mentioned in a previous letter, and copies of which illustrate his work on that organ. I suppose there could not be more exquisite dissection. The museum was not large but was rich in anatomical specimens and anomalies of much value, of Luschka's own preparation. His work was not complete when he died, for he was one of the patient, persevering, large-minded workers, who are few, but who are ever finding newer and better means of developing and communicating knowledge.

A third death,—that of the famous Philadelphia School of Anatomy, which has been recently buried under the march of progress. The new post-office buildings have devoured the ground upon which the old landmark stood. This comprised a couple of old, dingy buildings at the bottom of a court called Chant Street, out of Tenth, above Chestnut.

During the past nine years, Dr. W. W. Keen has been at the head of the school. He was therefore called upon to prepare its history from beginning to end, and read the same publicly at its dissolution. This he did, and his lecture, which has since been published,[1] is a most valuable contribution to the medical history of America, especially of Philadelphia, for it was in the Philadelphia School of Anatomy that many of the leading medical minds of the past half-century first took wing in the domain of teaching and scientific research in anatomy, physiology, therapeutics, toxicology, etc.

The school has always been a private affair, independent of all other organizations, and yet dependent upon the large colleges for audiences. And such have been the attractions offered, that students, after completing their arduous daily routine, flocked to this school every evening in the week for instruction in such branches as were of special interest to them, especially the study of anatomy. The school has been so fully recognized by the colleges that if their students chose to do their dissecting here, the certificate of the principal to that effect was accepted by the faculties. Many students chose this plan because of greater privacy and quietude.

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[1] *The History of the Philadelphia School of Anatomy.* By Dr. W. W. Keen. Philadelphia: Lippincott & Co. 1875.

The Philadelphia School of Anatomy was opened in 1820, by Dr. O'Brien Lawrence. Several other private anatomical schools werestarted almost contemporaneously, but this was the only one which held its uninterrupted way for fifty-five years. The others had but a brief existence.

Following Lawrence, Dr. John D. Godman took the school and held it until called to Rutgers College in 1826. During his sway he published many valuable anatomical papers and translations. He was succeeded by Dr. James Webster, who resigned his charge upon being appointed to the chair of anatomy in the Geneva Medical College in 1830. In 1831, Dr. Joseph Pancoast reopened the rooms, and during his term of seven years "he laid the foundation for his subsequent brilliant career as anatomist and surgeon." In 1838 he was elected to the chair of anatomy in Jefferson Medical College. Meanwhile, he too published important additions to anatomical literature. He was succeeded in the school by Drs. James McClintock, Justus Dunott, and Joshua M. Allen. Up to 1841, McClintock secured a large class by his excellent demonstrations. He was then called to a Vermont medical school as professor of anatomy, and Dr. Allen was left in sole charge of the school. It was during his régime that a lady dissected with the ordinary medical classes. "It was probably the first time that a woman had dissected as a medical student." Years later two ladies dissected (privately) in this school under the direction of Dr. Keen. One of them, Fräulein Hirschfeldt, is now practicing dentistry with great success in Berlin.

Dr. D. Hayes Agnew (now Professor of Clinical Surgery in the University of Pennsylvania) assumed the care of the school in 1852, and lectured for ten years. It was during his term of service that he published his Dissector's Manual and notable anatomical papers. In 1862, Dr. Agnew put the anatomical department into the hands of Dr. James Garretson, who withdrew two years later upon his election to the chair of surgery in the Philadelphia Dental College. He has since published his large work on Oral Surgery, and is pleasantly familiar to many as "John Darby."

Following him came Drs. James P. Andrews and R. S. Sutton. In 1866, Dr. W. W. Keen took charge of the school and lectured most successfully until the present spring, upon descriptive and surgical anatomy, artistic anatomy (or anatomy in its relations to art) and upon operative surgery. During this period he had fifteen hundred students, "of whom five are now professors, and one has opened the first dissecting-room ever established in Japan." In the course of his connection with the school Dr. Keen won the highest of encomiums and warmest of friends, by his unusual aptness and impressiveness as a lecturer and by his genial and gentlemanly friendliness to his students.

He also has published valuable medical papers, has edited Heath's Anatomy and Flower's Diagrams of the Nerves. His pamphlet on the Anatomical Pathological, and Surgical Uses of Chloral he deems his most important contribution to practical anatomy. But the lectures delivered in the Philadelphia School of Anatomy were not confined to anatomy alone. From 1842 to 1862, a body of teachers called the "Summer Association," and kept alive by the election of new men to vacated places, lectured upon various medical subjects. With many of these teachers the school became a stepping-stone to brilliant and widely known fame. It was here that Dr. J. Forsyth Meigs first lectured upon Diseases of Children; his lectures becoming afterward embodied in his well-known book, which, in association with Prof. William Pepper, he has more recently republished in a revised and enlarged edition. He was followed by Dr. now Prof. D. H. Tucker; he by Dr. W. V. Keating, both lecturing on Obstetrics. Dr. now Prof. Robert Bridges lectured on Chemistry; Dr. now Prof. Francis Gurney Smith lectured on Physiology. Upon his appointment to a chair in the university, his place was taken by Dr. S. Weir Mitchell in 1852. Dr. Alfred Stillé (now Professor of Practice in the university) first lectured here on Practice. Dr. Ellerslie Wallace, now Professor of Obstetrics in Jefferson College, lectured on Anatomy. Dr. J. M. Da Costa gave courses on Physical Diagnosis from 1854 to 1863, and so successful was he that he was obliged to refuse many applicants from lack of room. Here were begun numerous observations which he embodied in his celebrated work on Diagnosis, and it was here that he did most of the actual laboratory and experimental work, the results of which he published in various papers on pulmonary and cardiac affections. He is now Professor of Practice in the Jefferson Medical College. Dr. John H. Brinton here founded his later reputation by his lectures on general surgical subjects, and thus won his place as lecturer in Jefferson College and Clinical Surgeon to the Philadelphia Hospital.

Beside his didactic lectures on Physiology, Dr. Weir Mitchell gave here the first purely experimental course on Physiology ever given in Philadelphia, and in these rooms "made nearly all of his important physiological experiments and discoveries," namely, his discovery of saccharine or diabetic cataract; his experiments in preparation for his well-known work on snakes and snake venom, a work which English observers in India have taken with the result of confirming and extending, but in no important particular of reversing Dr. Mitchell's conclusions. He afterward experimented largely with woorara. Later he investigated the chelonia, "discovering its respirations to be mammalian and not batrachian, and with Dr. George Morehouse discovered the remarkable chiasm in the inferior laryngeal nerves of this animal, the only chiasm known, save the optic." In 1867–68 he studied the effects of intense cold upon nerves and nerve-centres. In 1869 he made his extended experiments on the cerebellum, preserving a pigeon, from which he had removed this portion of the brain, for nine months. What his reputation now is I need not relate. He is known, well known, upon two continents. All the teachers of the "Summer Association" have won their way as professors, teachers, and practitioners, to positions of renown, some of them having a brilliant reputation to-day

In 1849 Dr. Brown-Séquard delivered his first lecture in America to the students in this school. Scores of younger men, among them Professors H. C. Wood, Jr., Harrison Allen, James Tyson, and others, laid the foundation of their growing reputation by the results of their teaching and experimentation in the old Philadelphia School of Anatomy, which, now no more, will ever hold a warm place in the memories of all who ever taught or studied within its walls

UNGENANNT.

PHILADELPHIA, *May* 12, 1875.

ETHER AND CHLOROFORM.

MESSRS. EDITORS, — In a letter from my friend, Dr. Thomas Skinner, of Liverpool, published in the *British Medical Journal* for May 8th, I have been credited with a statement regarding the use of chloroform as an anæsthetic, which misrepresents my views and those of the medical profession in Boston to an extent which appears ridiculous. Dr. Skinner was my guest in August 1873. We had been fellow-assistants of the late Professor Simpson. He, in course of conversation, asked me in regard to the use of chloroform as an anæsthetic in Boston. My reply was that chloroform was used occasionally, but very rarely as compared with ether; that one could do as he chose in the matter, but if death resulted from the use of chloroform it would be a great misfortune for him in whose hands it happened, for the profession and the public would feel that he should have used ether, universally recognized among us as the safest anæsthetic. It would seem as if Dr. Skinner could not have been in earnest when he credited me with the extraordinary statement "that it was as much as my life and reputation were worth to attempt to administer chloroform in Boston, or anywhere in the United States," for he must have been aware that in the event of death from chloroform, the *life* of the physician who administered it would be as secure in New England as after a similar misfortune in Great Britain.

A. D. SINCLAIR.

BOSTON, *May* 27, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending May 30, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

Bronchitis, pneumonia, and rheumatism continue to be the prevalent diseases of the State at large.

In the Connecticut Valley, intestinal disorders — diarrhœa and dysentery — have increased. In Springfield, scarlatina of a severe type is prevalent. One fatal case of small-pox has occurred in Easthampton. Shelburne has had cases of cerebro-spinal meningitis. "German measles" has appeared in Orange.

In Worcester County, diphtheria is unusually rife.

In the Northeastern section, measles continues, and "German measles" is frequently seen. Lawrence reports two fatal cases of cerebro-spinal meningitis; Woburn has had several cases of the same disease.

In the Metropolitan district, the recent weather changes have been marked by an increase in influenza, diphtheria, and diarrhœa. The latter may also point to the advent of the fresh fruit and vegetable season. Scarlatina and measles have also increased somewhat.

In the Southeastern counties there is a satisfactory absence of acute disease.

If comparison be made with the previous week, we note an increase of measles, diarrhœa, pneumonia, scarlatina, and typhoid fever.

Diphtheria has its maximum prevalence in Worcester County; measles in the Northeastern section; scarlatina in the Metropolitan district.

F. W. Draper, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MAY 22, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	543	27
Philadelphia	775,000	335	22
Brooklyn	450,000	184	21
Boston	350,000	150	22
Providence	100,000	32	17
Worcester	50,000	22	23
Lowell	50,000	21	22
Cambridge	44,000	7	8
Fall River	34,200	14	21
Lawrence	33,000	7	11
Springfield	33,000	11	17
Lynn	28,000	8	15
Salem	26,000	14	28

Books and Pamphlets Received. — An Address on the Climatology of Florida. By A. S. Baldwin, M. D., President of the Medical Association of Florida. 1875.

Via Medica. An Address by S. M. Bemiss, M. D. (From the New Orleans Medical and Surgical Journal.)

Medical Charts of Temperature, Pulse, Respiration, and Regions. (From the Case and Record Company, Cincinnati.)

Boston Society for Medical Observation. — A regular meeting of this society will be held on Monday evening next, at eight o'clock, at the hall in Temple Place. Dr. Waterman will report a case of Empyema.

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.
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THE INTERESTS OF THE PUBLIC AND THE MEDICAL PROFESSION.

AN ABSTRACT OF THE ANNUAL DISCOURSE BEFORE THE MASSACHUSETTS MEDICAL SOCIETY, JUNE 9, 1875.

BY GEORGE H. LYMAN, M. D., OF BOSTON.

MR. PRESIDENT AND FELLOWS OF THE MASSACHUSETTS MEDICAL SOCIETY,—The first annual reunion of our society, comprising at that time but thirty-one members, was held ninety-four years ago. The custom inaugurated three years later, of devoting an hour at these meetings to an annual address, has, with four or five omissions only, been continued now for nearly a century. From the mere handful of men originally composing the society, we have increased to some fourteen hundred members.

During this long interval, the changes which have come over the spirit and practice of the profession of medicine, and the altered relations developed between it and the public, are more or less familiar to you, as are also the persistent attempts of unqualified pretenders to get such a lodgment under our banner as would enable them the better to pursue their impositions. Occasionally, unfit persons have by false pretenses obtained admission, but the association has proved an uneasy one for them, so incongruous and uncongenial that sooner or later they have been compelled to retire.

Were our objects purely selfish we might well abandon every struggle for better things, for who does not know that a patent pill or a well advertised elixir has more money in it than our philosophy has ever dreamed of?

If we are accused of conservatism, it must be conceded that it is for the conservation of the interests of the public: if we have refused to affiliate with any "exclusive dogma," whether it be Perkinism or Spiritualism, Thomsonianism orEclecticism, Allopathy or Hydropathy, Homœopathy or Electropathy, our sufficient reason is that the range of the regular practitioner includes everything of worth which they contain, most of these erratic systems originating mainly in attempts to erect an independent structure upon some isolated but already well-known medical fact, valuable only in its existing and subordinate connection.

Were the charge true that our organization tends to limit free inquiry and independent practice, we should now be all following the same routine of set formulas for every disease. So far from the truth is this, that the disagreements of doctors are proverbial.

While pathology, physiology, diagnosis, hygiene, the natural history of disease, have in their rapid development approached more and more nearly the dignity of science, it still remains true that the practical application of our remedial measures to the multiform and complicated emergencies arising from individual constitution and habits of life constitutes as yet only an art, in which the artisans, precisely as in all other callings, are more or less skillful, and that the fullest latitude is allowed to the judgment of each individual. Every physician has his favorite method, the result of personal experience or choice, for meeting indications as they occur. One is most successful with morphine, another with opium, as an anodyne; one prefers cold water, another, digitalis and squills, for diuresis; one approves of blue mass, another of podophyllin; one believes in the ligature, another in torsion. Some, indeed, believe in nothing at all, unless it be with the early objectors to anæsthesia in midwifery, that pain and suffering are a part of the plan of creation and had better not be much meddled with.

It cannot be denied that there is quite as much difference among regular practitioners in their methods of treating the same disease as between them and the better class of so-called irregulars, between whom and ourselves the distinction in many cases is one of ethics rather than one of therapeutics, and the result has naturally been the absorption by regular practice of all worth preserving in every "ism" and "pathy" that has attempted the erection of a new school on its "exclusive dogma." Nor need we fear a different result from any of the novelties which the future may have in store.

The restless spirit of the age resents any exhibition of conservatism, no matter where it may manifest itself; neither law, theology, nor politics is safe from the attacks of the modern reformer, clad in his mail of self-conceit. It is not surprising, therefore, that our own profession, a compound as it is of science and art, and which is perhaps the least capable of mathematical demonstration of any of the liberal callings, should be obliged, in its turn, to put itself on the defensive against outside clamor, nor that the cautious spirit which has always characterized our action as a society has been attributed, by the unthinking portion of the community, to illiberality, to a blind conceit and pride of opinion, clouding our vision of the new truths so palpable to their clearer intellectual insight.

It surely may be claimed for regular practitioners as a body, that they are as intelligent, honest, unselfish, and gifted with as fair a share of common sense, as any other body of men. Granting this, it is passing strange that the same business sagacity which distinguishes our people in their respective callings should not lead them to recognize that their safest course, in matters involving such vital issues as the preservation of life and health, is to leave the working out of these problems to those specially trained for the duty, and whose interest in the result cannot possibly differ from their own.

It is unnecessary to state to this audience that the practice of to-day is in almost every respect unlike the practice of our fathers, and probably another half-century will witness a corresponding amount of light thrown upon much that is now confessedly obscure. Such progress can only be delayed by an arrogant assumption that all novelties are necessarily worthless.

Intemperate opposition only makes martyrs of those, than whom none know better how much for their interest is this species of martyrdom. There is a force behind which irresistibly impels to progress and development, and it becomes the medical profession to retain the lead if they do not wish to be lost sight of in the rear. Were the axiom always borne in mind that we have no rights separable from the interests of the public, it would clear away much sensitiveness and misapprehension; then the public, realizing our disinterestedness, would more cordially rely upon our judgment, and patiently wait for all necessary investigation with something of the old faith in the final decision.[1]

There is one topic relating to our profession which is now interesting certain portions of the public, and one which, sooner or later, we may be compelled to take into consideration, arising out of the excitement as to "woman's rights," especially in relation to a higher standard of female education. I refer of course to the question as to whether our medical schools and hospitals should be opened to women; if so, whether by the method of separate or mixed instruction; and finally, whether those able to pass satisfactory examinations shall be admitted to our society.

First of all, then, we may freely admit the right of women to every educational advantage in all the arts and sciences, in law, theology, and medicine. They not only have this right, but they already exercise it; and if they can attain to the standard required, we need seek no occasion to throw obstacles in their way.

Whether the education they seek shall be in our companionship; whether the law schools, the theological seminaries, or — which more concerns us — the medical colleges and dissection-rooms shall be thrown open to them indiscriminately; and whether we especially are called upon to assist them in securing these demands and then admitting them to this society, which was never intended for such affiliation, are questions involving many other considerations by no means so clear.

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[1] A gratifying and encouraging indication of the confidence still existing in the purposes and practices of the medical profession, notwithstanding the plausible and aggressive character of quackery, is shown by the liberal contributions made since our last meeting, for the erection of new buildings to facilitate the work of the Medical Department of Harvard University.

It is a common popular fallacy, founded upon a superficial, perverted view of the facts, that females are peculiarly adapted to the practice of obstetrics. Nothing could be more erroneous, as there is probably no branch of the profession for which they are so ill adapted. More than half a century ago the propriety of the employment of women as midwives agitated the profession and the community in this vicinity. The matter was reviewed by Dr. John Ware, among others, and his opinion was clearly against it, not on the ground of any "intellectual inferiority or incompetency in the sex," but "rather from the nature of their moral qualities." He adds: "I venture to say that a female could scarce pass through the course of education requisite to prepare her as she ought to be prepared, for the practice of midwifery, without destroying those moral qualities of character which are essential to the office." His reasons are cogently put, and to the many here present who remember his wise judgment, the acuteness of his observation, and the purity of his character, those reasons would have great weight.[1]

Indeed, it may well be doubted if in the whole domain of even purely surgical practice more of these masculine qualities are required than in some of the unforeseen accidents to which every lying-in woman is liable, and upon the occurrence of which nothing but the most prompt interference will prevent a fatal result to the mother, or to the child—possibly to both. This branch of the profession, in the hands of women from time immemorial, receiving from them little or no improvement, no thorough investigation, had no sooner passed into the control of men than its practice was revolutionized, and so continuously developed by exhaustive study and analysis of the physiology, mechanism, and therapeutics of parturition, that it may now be reckoned among the most perfect departments of our art.

It is asserted by most of those who have given attention to this subject, that the delicacy and sensitiveness of the female organization, and especially the physiological peculiarities of their sexual nature, are incompatible with the physical vigor required for the harassing and wearying duties of the medical profession, duties from which even the strongest men are often obliged to seek relaxation. To this the reply is made that the assertion is not founded upon fact. This answer may be, doubtless in some instances is, correct; but we may be permitted to question whether the cases cited in proof are not really exceptional, and whether such results, as a rule, can be attained without in some measure destroying that relationship between the sexes established by an all-wise Providence, and the recognition of which has heretofore been thought essential to the best welfare of society. How many women after all are there, whose health, strength, or temper for a fourth or fifth of the active period of their lives, is not accompanied by a state of nervous erethism sufficient to materially and unfavorably influence their mental equipoise, as well as their physical ability for professional work? "They cannot escape the physiological conditions of their sex." Most women, as well as most men, naturally hope to be married, and being married hope to have families. If their time is to be given to the exacting demands of professional life, instead of, or in connection with, those more domestic pursuits which heretofore have been considered as their appropriate sphere, and for which no one else is competent, they must first point out to us some feasible substitute, or both parties will come to grief.

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[1] Remarks on Employment of Females as Midwives. Boston. 1820.

But admitting, if you please, for the occasion, that the medical profession does offer a proper opening for the ambition of a few of the female sex, the important consideration immediately intrudes itself, How shall that education be acquired? Shall it be in mixed classes, in the companionship of the other sex, with all the existing advantages which our medical colleges render immediately available, with their organized corps of instructors, their dissecting-rooms, laboratories, museums and cliniques? Or shall these same facilities be afforded them only in separate classes, involving of course double duty from the instructors, who for the present at least must be, for want of any other, of the male sex? Or, neither of these being acceptable, shall the privilege be accorded them of examination for degrees (as is now done in Dublin, Oxford, and elsewhere) whenever they, by such independent methods as they best can secure, shall have fitted themselves for that agreeable ordeal?

In Great Britain there seems to be a willingness to admit women who may desire it to matriculation, but only in separate classes. There being no law compelling unwilling professors to give separate instruction, their opportunities are necessarily limited. Even when, as stated above, they succeed in getting the necessary instruction, it has been formally decided "that women have at common law no right to demand to share the studies of men at universities, and no right to demand degrees."[1]

On the Continent, however, there seems to be less sensitiveness, and women may be admitted freely in mixed classes, to professional medical teachings and demonstrations on all subjects, without exciting disagreeable comment. Whether this be owing to more general freedom between the sexes, to what we should consider a lax tone of public delicacy, or to some other cause, it is difficult to say; but it is rather startling to suppose that such a state of public sentiment will ever become the rule in this country. Disclaiming any juvenile squeamishness, the idea of woman being present at certain anatomical demonstrations, either on the living or the dead subject, which are imperatively necessary for the proper instruction of students, is neither more nor less than disgusting. It is, in this connection, arrant nonsense to say that to the pure all things are pure, and to repeat the stupid platitudes about "prudery," "sickly sentimentalism," "false shame unworthy this advanced age," etc.; as well apply these terms to the ordinary conventionalities of all decently pure domestic life, and demolish every door and shield to privacy.

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[1] Saturday Review, July 5, 1873.

On the other hand the difficulties attendant upon wholly separate instruction, with separate colleges, hospitals, and other necessary paraphernalia, are so evident that for any attempt in that direction disappointment may be predicted in advance. It seems hardly probable that the numbers seeking their advantages would be large enough to render the solution of the pecuniary problem, that bugbear of all large educational projects, an easy one; so that it apparently results in this, that if women are to be educated as doctors with any prospect of success, it must be effected through the instrumentalities already in operation for the instruction of male students.

Finally, granting that in one way or another they have been able to prepare themselves sufficiently to pass the requisite examinations, and have received their degrees, the main question recurs, What should be the policy of this society as to admitting them to its privileges?

If however much we may disapprove, they are to be professionally educated and given degrees, their admission seems to follow as a natural and necessary result, and indeed there are reasons why it might be thought advisable. It is quite improbable that in point of numbers their influence would ever become embarrassing.

It would terminate a so-called grievance, the constant iteration of which places us in a false position to the public, and renders our motives liable to misconstruction.

The most serious objection to their admission is that it would be immediately construed as a tacit approval by the medical profession of any professional education for women. This would be a great error, the truth being that the profession as a whole are singularly unanimous in their disapproval of any such aim, they having a very decided conviction that the higher standard of education which women are seeking, and which they certainly ought to have, should find for its development other and more appropriate spheres which are as yet far from being exhausted.

Mr. President and gentlemen, one duty remains to me, the only one which your favor has imposed that I approach with any feeling of reluctance; it is to remind you of the fact that while we may be instrumental in warding off disease and death from others, we can ourselves claim no exemption from the dread summons.

During the past twelve months thirty-five of our number have gone to give an account of their stewardship. Most of them were long past the meridian of life; two[1] highly distinguished for their varied acquirements, justified their title of honorary members by leaving behind them at threescore years and ten an enviable professional and social reputation for scientific attainment and personal worth.

Among the others there were many whose long accustomed familiar presence at our meetings will be sorely missed. The perpetuation of their memory upon our records belongs of right to other hands, but I trust you will pardon me for an allusion to some who have been peculiarly prominent in this city.

There is hardly need of words to remind those of you so long privileged with his daily presence, of our late President, Dr. Charles G. Putnam, a man who bore about with him such an invariable atmosphere of kindness and gentle courtesy, a man whose abundant professional resources, and whose great tact and operative skill in his own especial branch were always so freely at the service of his less experienced brethren, and whose qualities of head and heart it delighted us to recognize by conferring upon him our most honorable office.

The name and memory of Jeffries Wyman, whose professional worth and high distinction in the more peculiarly scientific branches of our work have already received such just and eloquent tributes, belongs not to us alone, but to the whole country. To this society it must lways be a source of pleasure and pride that his name stands enrolled pon its catalogue as having been one of its most active members.

Dr. George Derby, too, will be remembered and honored by all as one who, after achieving distinguished reputation for hospital service during the war of the rebellion, deserved every credit for his persistent efforts in developing and sustaining the influence of our State Board of Health, until it finally became a permanent power for good in the land.

In like manner I might enumerate others of the list, were it not encroaching too much upon the privilege of those whose duty and pleasure it will be to commemorate them.

Let it be our aim so to conduct ourselves in our professional relations o each other and to the public, that we too at the last may deserve the like kindly recognition.

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[1] Josiah Crosby, Manchester, N. H., died January 7, 1875, æt. 81; Edward Delafield, New York, died February 13, 1875, æt. 81.

ON HATHORN SPRING MINERAL WATER.[1]

BY S. A. FISK, M. D., OF NORTHAMPTON.

MINERAL waters are probably the most notable of all the remedial agents which have been used by man from a very early period; their curative powers have not only inspired his faith, but have also retained it to a considerable extent, and this, too, notwithstanding the medical profession of late years has seemed largely to overlook the real merits of these therapeutic agents.

While I have for many years regarded the waters of Saratoga Springs as an agreeable beverage and a pleasant evacuant, I have, in common with very many, if not with a large majority of the medical profession, looked upon those springs rather as a resort of the gay votaries of pleasure and fashion, than of those seeking benefit from medicinal waters. Such is undoubtedly the fact to a considerable degree; and to this is probably due the belief that whatever of renewed health and vigor may follow a visit to this renowned place is to be ascribed rather to the pure and stimulating air, to a relaxation and relief from the engrossments of business, to a temporary change of habits of life, and to the varied and pleasurable excitements attendant upon a sojourn in the midst of scenes so diverting, than to the real remedial qualities of the mineral springs.

Admitting that these influences have a happy and beneficial effect upon the overworked, still there is a large class of invalids who resort there, not to be active participants in gay scenes, but to drink the waters, and who do find them health-giving and possessed of positive curative value. In such cases, the invigorated health, and renovated spirits cannot be ascribed simply to a change of air or to the relaxation which the social attractions and amusements of the place afford; for without the use of the water these results do not so surely follow, neither do they follow in so marked a degree.

Three years ago I visited Saratoga Springs with a different object in view and in a different condition than ever before; I went then as a seeker after health, and became an exceedingly interested and critical observer and investigator. For many months prior to that time I had become the subject of persistent insomnia. Sleep would visit my eyelids but for a brief period at a time; from thirty to sixty minutes was its average duration, to be succeeded by long intervals of wakefulness.

Accompanying this vigilance was the still more distressing malady of vertigo, from which I suffered often, and which at times confined me to my bed from two to eight days, then wearing gradually off, to be speedily followed by another attack, quite as disabling and prostrating as severe sea-sickness. A few hours of mental exertion, mental anxiety, or any fatigue that lowered the standard of my health at that time was sufficient to produce an attack of vertigo in its severer forms.

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[1] Read before the Hampshire District Medical Society, May 12 1875.

My stomach sympathized in the general derangement and was not, as might be supposed, a primary cause of the mischief. Anything and everything that I ate caused distress. The action of the heart was feeble, and a very decided dropsy of my legs now showed itself and became exceedingly troublesome, the œdema increasing persistently.

Moderate physical exercise overcame me. A ride of six or eight miles exhausted me, and with this there was not the slightest emaciation. I was the victim of great nervous prostration; a diagnosis which was confirmed by a number of my professional brethren, who after most thorough investigation were unable to discover organic disease. Having failed to get relief from remedies suggested from the pharmacopœia, I resorted in this condition to Saratoga Springs, not as before, for relaxation and enjoyment, but for the purpose of drinking the waters for their medicinal and remedial effects.

These waters, in the nomenclature of mineral springs, are known as alkaline-saline waters. Being highly charged with carbonic acid gas, they take up and hold in solution the alkaline carbonates and chloride of sodium principally; though some of the springs, in addition to these, hold carbonate of iron, carbonate of lithia, iodide of sodium, and other salts more or less in solution. The large amount of carbonic acid gas contained in these waters not only increases the solvent powers of that menstruum, enabling it to take up and hold in solution a favorable combination of ingredients, but renders them very easy of digestion, and to most persons very agreeable to the taste.

Here, in these waters, but more especially in that from the Hathorn Spring, I found a remedy that seemed to meet the indications in my own case. These indications evidently were, to put the digestive organs into healthy action, to unload the plethoric visceral vessels, to stimulate the emunctories, and to so break up and change the acid and other secretions of the stomach that food might be digested and assimilated readily.

The Hathorn Spring, which was accidentally discovered in 1868, and which is already taking a leading place for its prompt and certain therapeutic properties, contained the combination of chemical agents that were indicated in the condition I was in at that time. In taste and general character this water resembles that of the celebrated Congress Spring; it is stronger, however, in some of its constituents, more prompt and certain in its action, and contains also a bicarbonate of lithia which renders its diuretic properties of great value.

The following is the

ANALYSIS OF THE HATHORN SPRING.

Chloride of sodium	509.968	grains.
Chloride of potassium	9.597	"
Bromide of sodium	1.534	"
Iodide of sodium	.198	"
Fluoride of calcium	a trace.	
Bicarbonate of lithia	11.447	"
Bicarbonate of soda	4.288	"
Bicarbonate of magnesia	176.463	"
Bicarbonate of lime	170.646	"
Bicarbonate of strontia	a trace.	
Bicarbonate of baryta	1.737	"
Bicarbonate of iron	1.128	"
Phosphate of soda	.006	"
Biborate of soda	a trace.	"
Alumina	.131	"
Silica	1.260	"
Organic matter	a trace.	"
Total solid contents	888.403	

Carbonic acid gas in 1 gallon, 375.747 inches. Density, 1.009.

It will be observed that the quantity of salts contained in this water, excepting the chloride of sodium, is comparatively small. Its therapeutic action, however, when taken in the usual quantity is much greater than the small amount of the salts would produce if combined artificially. In its remote action it is, like other mineral waters, a powerful alterative when taken in moderate quantities, for a considerable time.

When an explanation of these facts is asked for, we can only quote in reply that calm and careful investigator and most brilliant practitioner of our day, the lamented Trousseau, who, writing of the peculiar therapeutic effect of mineral waters, says: "Whatever may be said of them, mineral waters are not simple medicaments; whatever may be the predominant mineralizing agent as demonstrated by analysis, it acts not alone. Nature, in combining with the more or less notable elements which chemistry may isolate other exceedingly variable ingredients and principles which have not yet been discovered, has done for this mineralized agent that which we seek to imitate each day in our prescriptions when we endeavor to reinforce or diminish the effects of a medicinal substance by associating others with it. In making due allowance for the particular phenomena which may result from the action of such or such elements which enter into the composition of a mineral water, we should not attribute to a single principle, however dominant it appears in the chemical analysis, all the properties of the water; and clinical experience only can permit us to judge. This is so exceedingly true that dyspepsias allied to a grave cachectic state (I do not now speak of paludal cachéxia) are admirably modified by very different waters; by those waters in which the mineralizing principle escapes, so to speak, chemical analysis. . . . Plombières and Bagnères-de-Bigorre, in the particular disease which occupies us, in virtue of an action which escapes us and which I know not how to explain, triumph over rebellious dyspepsias. Under their salutary influence the appetite revives, the constitution is reorganized; patients affected with dropsy, with visceral engorgement, arrive at Plombières or at Bigorre in a deplorable state, and depart, after a single season, in a condition notably ameliorated, and are often cured in a manner altogether unexpected."

What Trousseau says of Plombières, I am able, from a personal experience, to say of Hathorn Spring water. Its therapeutic action is very prompt. When taken in the morning, it is agreeable to the taste, grateful to the stomach, and acts efficiently as an evacuant; and while it may, and in many cases does, induce full and copious dejections, they are not attended with pain; neither is languor nor debility experienced by the patient; but, on the contrary, a feeling of refreshment and invigoration. The immediate effect upon the digestive organs, whether impaired by disease or exhausted from any cause, is to increase their powers of assimilation and nutrition, the appetite being increased at once. That oppression which is often felt, that sense of fullness which was termed "abdominal plethora" by the old authors, that condition, in short, in which the liver, spleen, and mesentery are usually filled with blood, slowly moving, and when hæmorrhoids are troublesome, is quickly relieved by it. The abdominal circulation is increased and the engorgement of the blood-vessels is diminished with a gratifying sense of relief.

To those affected with what has been supposed to be an engorged condition of the liver, characterized by a dusky complexion, a coated tongue, a pasty, bad taste in the mouth, a capricious appetite and sluggish action of the bowels, with a sense of fullness in the head and of mental dullness, this water proves most valuable. It seems to liquefy the bile, causing it to flow freely, and gives increased action to the intestinal canal.

When taken more frequently and in smaller quantities than the cathartic dose, its effect upon the kidneys is no less happy. Its action upon the renal secretions is prompt, uniform, and quite certain. A turbid, irritating urine is quickly cleared up by it; the ureters and bladder are soothed, and many cases of vesical catarrh are quite relieved by it.

In some of the cutaneous diseases, those more especially dependent upon an acid state of the secretions, these mineral waters are beneficial, both from their alkaline properties and from their depurative effects.

Such, in brief, are some of the therapeutic effects of the Hathorn Spring water, to the use of which I attribute the entire relief I have obtained from the uncomfortable symptoms detailed above. Sleep, quiet and refreshing, has returned to my pillow. The only consciousness I now have of a stomach, when it is kindly treated, is from its intimations of hunger; and the dropsy, which was troublesome for so long a time, and which suggested serious reflections, has disappeared; strength and a comfortable amount of endurance have supplanted a feeling of languor and of debility. The dyspeptic symptoms and the dropsy were speedily relieved by a short season at the springs; they returned, however, after a little time, but a continued use of the water for a few months brought about a permanent condition of health.

I have referred to my own case with so much of detail as it is illustrative of this subject, and because some of you are familiar with it, and to you I am under obligations for kind professional advice and assistance.

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RECENT PROGRESS IN DERMATOLOGY.[1]

BY JAMES C. WHITE, M. D.

Treatment of Sycosis. — Veiel[2] claims to be able to cure sycosis in his establishment at Cannstadt in four weeks by the following method:

The beard is cut short with scissors, the crusts are softened with poultices of bread and milk and flaxseed, and after this an ointment consisting of tar, two parts, and green soap, one part, is rubbed into the skin until the hairs are easily extracted with forceps. After epilation is completed acetic acid is applied by a brush. In consequence of this painful treatment the parts swell and discharge a serous fluid, which dries to a crust in twenty-four hours, and falls off in three or four days. After this the single pustules which form are, after epilation, to be again touched with acetic acid. The application of a sulphur paste forms, in combination with a course of baths and laxatives, the conclusion of the treatment.

During the last ten years Veiel has treated thirty-seven cases, of which thirty-four were discharged well. The duration of the disease was in seven of them under five years, in five over ten years, and in one over twenty years. Seventeen of the patients were between twenty and forty, and twenty of them were between forty and sixty years old.

He says nothing of relapses; nor is it stated whether the cases were of a parasitic or non-parasitic form. The *Medical Times and Gazette*,[3] makes the statement that Neumann has recently met with his first case of parasitic sycosis in Vienna, and adds that the disease appears to be as rare in Austria as in England. It certainly is by no means rare here as the sequel of ringworm of the face.

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[1] Concluded from page 653.

[2] Blätter für Heilwissenschaft in Vierteljahresschrift für Dermatologie und Syphilis, Jahrg. 1, Heft 2 und 3.

[3] January 9, 1875.

Vorwegian or Crusted Scabies. — Dr. Bergh,[1] of Copenhagen, commu- ates a long and very interesting article on this peculiar form of itch, which, as is well known, the animals live in colonies in the crusts, h which the skin is more or less generally covered. From some se, not fully understood, but probably an individual peculiarity, an essive formation of epidermal scales takes place in parts, beneath ich the insects live and die in successive generations, leaving their ıains embedded like fossils in superimposed strata; of this rare ction Bergh gives now another instance, in which, in addition to the sts above mentioned, several of the nails of the fingers and toes pre- ted similar epidermal outgrowths of great size, resembling thick ws, as has been observed in other cases. The patient had been cted by the disease for sixteen years. The subjective symptoms were same as usually accompany severe cases of scabies of long standing, ending in great measure upon the universal distribution of the or- ary lesions of the affection, which in this case, as in most of those viously observed, were also present. By the microscope the crusts re found to consist of epidermal cells glued together by fluid exuda- n, and of a molecular material mostly of a fatty nature, mixed with ittle blood. Their substance was found to be filled throughout with innumerable number of the excrements, egg-shells, eggs in all stages development, cast-off skins, and animals in all stages of metamorpho-

The outgrowths from the nails were found also to be filled with ıilar forms; the careful examination of a single fragment, a cubic llimetre in size, yielding one male, one female, two eight-legged and six -legged young, six eggs, and twenty-five egg-shells, thirteen larger and aller bits of their skin, and about two hundred and fifty fæcal masses. is in this form of scabies that the male sarcoptes is most readily tained, inasmuch as both sexes are found in the crusts in nearly equal mbers. In the examination of the nails in this case, Dr. Bergh ınted one hundred and sixty-one males and one hundred and ninety nales. With this abundant material at command he has made a nute study of the animal in all stages, the results of which are given detail, and establish beyond doubt its identity with the sarcoptes of linary scabies.

The patient was first treated by baths of potash, the hands and feet re enveloped in vulcanized rubber, and the body sprinkled with a ution of carbolic acid in water. After seven baths all the crusts had len off and the nails had become smaller. A liniment of styrax was n applied twice a week morning and evening, and the sprinkling d baths were used on the other days. At the end of four weeks the t of the nails had fallen, but were reproduced upon the toes in the ape of claws. The skin where the thickest crusts were seated was still red and somewhat thickened, while in other parts it was deeply pigmented. After a continuation of this treatment for two months and a half the patient was finally discharged well.

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[1] Vierteljahresschrift für Dermatologie und Syphilis, 1 Jahrg., 4 Heft.

Disturbances of the Sensibility of the Skin. — Dr. Rendu[1] is publishing an extended series of observations upon the changes of sensibility of the skin in its various affections. He finds that these alterations occupy an important position in the symptomatology of cutaneous diseases, whether they be fugitive or chronic, superficial or deep-seated in their nature. No general law of deviation, however, has been discovered. With the more superficial lesions of eczema, for instance, there are manifest perturbations of the different varieties of sensation, while on the other hand in the deep tissue changes of scrofula and syphilis, which should destroy all sensitive perceptions, the sensibility is left intact. Moreover, in inveterate psoriasis the sensations may preserve their normal character, while in the earliest vesicular stage even of zoster they will be almost always altered. The different kinds of sensation, too, vary without regard to each other. It is very rare, for instance, to see the sense of touch, of pain, and of temperature affected to the same degree in any disease of the skin ; generally it is a change in the sense of temperature, always a diminution, which is first perceived and persists the longest. Change in the sense of touch is the next to show itself, and in general its variations follow those of temperature, anæsthesia prevailing over hyperæsthesia. Eczemas and psoriasis, for the most part, fall into this category ; while the pseudo-exanthems, zoster, and artificial eruptions are generally accompanied by hyperæsthesia. The sense of pain, on the other hand, differs widely from these in its variations. Its changes are ordinarily less than those of touch and temperature, so that it often remains intact where there is obtuseness of tactile sensibility and thermo-paralysis. In eczema, for instance, true hyperalgesia may occur in marked contrast to diminution of the impressions of contact and temperature. On the other hand the sensations of touch and temperature may be normal or only slightly altered, when a more or less profound analgesia constitutes the dominant symptom, as in the circinate forms of psoriasis especially. When tactile sensibility is exalted, hyperalgesia is equally observed as a rule, and analgesia is never seen to coincide with tactile hyperæsthesia, although it is common to meet with thermo-paralysis under these circumstances. Zoster, erysipelas, and most of the artificially provoked affections furnish examples of this kind of association. The four following groups of variations may be recognized: —

1st. Diminution of tactile and thermic sensibility, that of pain being preserved. This is the most common class, and includes eczema and psoriasis.

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[1] Annales de Dermatologie et de Syphiligraphie, vi., No. 2.

2d. Exaltation of sensibility to touch and pain, thermic sensibility being blunted. This is the type to which belong erysipelas, herpes, erythema, and most of the artificial eruptions.

3d. Preservation of the sense of touch and temperature coinciding with analgesia more or less pronounced, as in some forms of psoriasis.

4th. Finally, in certain cases, hyperæsthesia associated with anæsthesia and analgesia, sensibility to temperature remaining intact or diminished. This is noticed in zoster, which forms a special group therefore.

Relations of the Nervous System to Skin Diseases. — Dr. Bulkley in this article [1] publishes his conclusions as to the neuro-pathology of cutaneous diseases after a careful study of the subject from the anatomical, physiological, and pathological points of view. He calls attention first to the intimate relation between the nerves and the various structures of the skin; then to the close physiological connection between the skin and other organs through nerve-communication, to the distribution of certain eruptions along nerve-tracts, and to the phenomena of reflex irritation; and then to the teachings of pathological observation. He would show by reference to a great number of recorded cases that peripheral nerve-injury is followed by cutaneous lesions, that lesions of conducting nerves are constantly followed by the same, and that traumatic as well as idiopathic disease of the spinal cord and brain are not infrequently accompanied by certain forms of skin disease. Negatively he argues that "nerve-section or nerve-abnegation are incapable of exciting these disorders;" while nerve-irritation or reflex action are abundantly able.

Stated thus generally, there is little reason to disagree with these conclusions of Dr. Bulkley; but when he would apply them to many of the forms of skin disease cited in this article as evidence of their correctness, we should say that they are as yet unwarranted. And this judgment would certainly be strengthened by his argument from a therapeutical point of view. "Not less striking," he says, "are the therapeutical indications of a neuro-pathology of skin-diseases. Among our very best remedies are iron, quinine, strychnine, and arsenic, potent also in nervous disorders, while electricity, long serviceable in the latter, is claiming a high place in cutaneous therapeusis. If asked as to the action of other remedies, as the alkalies, acids, vegetable and mineral products, we reply, by so altering or removing elements which cause nerve-irritation that normal innervation returns and continues." The old humoral pathology, or the modern French doctrine of diatheses in dermatology, might be as conclusively substantiated by the same argument. The science of therapeutics can hardly walk alone; it is an unstable prop for pathology to lean upon. As for the claims of "electricity in cutaneous therapeusis," they have been loudly sounded from some quarters, but upon so feeble grounds that they scarcely deserve attention.

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[1] Archives of Electrology and Neurology, November, 1874.

The article is full of valuable references and information, and forms a very important contribution to the literature of the subject.

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STEINER ON THE DISEASES OF CHILDREN.[1]

THERE are few men so well qualified by large opportunities of observation and experience to write a work upon children's diseases as Professor Steiner, who has been uninterruptedly connected with the Francis-Joseph Hospital of Prague for fifteen years, spent partly under the guidance of Freiherr Joseph von Löschner, and partly in the independent position of teacher and physician-in-ordinary to the hospital. The cause of true medicine is advanced when such men are willing to take upon themselves a labor so arduous; and the translator is to be congratulated for the good work he has done in enlarging the circle of readers to whom it will now be accessible.

As illustrative of the large amount of material which the Children's Hospital at Prague furnishes, we have taken the following interesting facts at random from the book: In an annual *clientèle* of 9000 patients, there were 1300 suffering from catarrh of the air-passages; of 4292 cases of brain disease, tubercular meningitis was found 224 times; of 100 cases of brain tumors, 94 were tubercle; during twelve years there were seen 52 cases of tetanus, and of these 45 were fatal; 275 cases of chorea were seen during ten years; and it is interesting to note that the author knew of no case where intestinal worms could be assigned as the exciting cause; nor had he ever seen a single case of epilepsy where this disease was produced by worms; 10,181 cases of pneumonia occurred in ten years; in his own experience, gangrene of the lung occurred 40 times; gangrene of the mouth (noma), 102 times; of 800 cases of tubercle the peritoneum had been its seat 92 times. Amongst 40,000 cases of sick children, there occurred 425 cases of independent diseases of the liver; in 324 cases of Bright's disease it had occurred primarily only 6 times; of 10,000 sick children in the hospital there were 1192 cases of scrofula and 864 of rickets; of the former, 984 had eczema.

The various subjects are treated with great thoroughness, notwithstanding the very concise style in which they have been written. The pathologico-anatomical descriptions, as we have now become accustomed to expect in German medical works, are everywhere given with great accuracy and exactness. This is also noticeable in the classification of the diseases.

The author's ideas of treatment are always clearly given, and the mind of the reader is never left in confusion as to what Professor Steiner really believes or as to how he practises. A knowledge of the art of making up prescriptions, of the proper doses, and of other minutiæ of practice is, as a rule, presupposed,

[1] *Compendium of Children's Diseases.* By DR. JOHANN STEINER. Translated from the Second German Edition, by LAWSON TAIT, F. R. C. S. New York: D. Appleton & Co.

so that those desiring fuller instructions in these matters will have to seek them in larger treatises. Drugs for the most part are simply indicated, and formulated prescriptions are not very numerous.

It is difficult to give a fair idea of a large work by quotations that must necessarily be brief, but we have selected a few, of inherent interest, which will serve to show the independent views of a distinguished authority upon subjects concerning which at the present day there still exists much variance of opinion.

Bromide of potassium, given in doses of from one to two grains every three or four hours, in the treatment of eclampsia has not proved of much use in the author's experience. And with regard to its use in epilepsy he says: "The bromide of potassium has been highly spoken of in recent times, and has come to be the usual remedy employed for epilepsy. Weakening and diminution of the paroxysms I observed in several cases, especially when, after large doses a degree of saturation seemed to occur; but I have not as yet to thank bromide of potassium for a case of permanent recovery. The experience recorded by other practitioners, that any new remedy seems for a time to have a preventive influence over the disease, I can confirm, and herein lies the encouragement frequently to change the remedies in the treatment of such cases."

The term croup is used by Steiner, as by most writers of the present day, in a generic sense for all exudative inflammations of the larynx. The varieties of disease consequently classed under this name do not always present the same pathological changes. According to the nature of the exudation, the terms true, diphtheritic, and purulent are employed. These three varieties cannot always be defined clinically, and may have exactly similar symptoms. The author's experience as to results of treatment in this fatal disease has nothing new to offer. Death has been the rule, tracheotomy alone seeming to diminish somewhat the percentage of deaths. Ninety cases had been operated upon, and 34.6 per cent. of the affected children saved.

The author takes no part in the theory now advanced by some (Hueter, Hallier, Letzerich) that certain organisms of low type are important factors in he causation of diphtheria, whooping-cough, etc. He regards their presence n the former disease as one result of that affection; and in whooping-cough he has never been able to discover them in the expectorated mucus.

The author's treatment of pneumonia is "chiefly dietetic and symptomatic." "To weakly and reduced children,'' he writes further on, "with extensive hepatization and a tendency to collapse, stimulants must be freely administered, such as wine, æthereal tincture of iron, etc., and these I have often seen have a wonderful effect; indeed, to them I trust chiefly in the treatment of inflammatory diseases of the lungs in children."

In most German works the subject of paracentesis thoracis seems to be but imperfectly appreciated, and the directions for its use unsatisfactory. We find it dismissed in the following few lines: "If the pleurisy should become purulent and the symptoms become unfavorable, thoracentesis must be performed, though very frequently the natural efforts will create an exit. The cavity may afterwards be injected with iodine."

In the chapter on dentition and its dangers, the author admits that while dentition may go on without any disturbance, in some cases its effect upon the system is very serious, and may even destroy life. "There are certainly," he says, "some pathological conditions which are intimately associated with teething as their cause, though this explanation of them must always be received with caution, and the fashion of attributing to dentition all diseases which may occur during its process must be carefully avoided. . . . It must not be forgotten, in the consideration of any of the conditions above referred to, that the period of dentition also includes many other important changes, such as the weaning of the child, peculiar growth of the brain, and the time when rickets make their appearance; so that great discrimination is necessary to place upon each its proper value." "In general the treatment requires to be merely expectant, with a careful supervision of the child's diet and the removal of any source of excitement. . . . Formerly the gums of nearly every child suffering from any of the maladies of dentition were cut, but this practice is falling more and more into disuse."

In the local treatment of urinary incontinence, cold and aromatic hip baths and the retention of a catheter in the urethra for some time have been found very useful. No definite results have ever been seen by him from the use of extracts of belladonna or nux vomica. "No mechanical contrivance," he writes, "should ever be used for compressing the penis or neck of the bladder, for such can never prove much more than an instrument of torture."

In alluding to the recommendation of Waldenburg and others, in the treatment of eczema in children, to leave such eruptions alone, as far as any local measures are concerned, lest the curing of the rash induce mischief of a more serious kind, as meningitis or hydrocephalus, he says: "More than a thousand cases of eczema have come under my own observation; and almost all have been subject to local treatment, without reference to their duration or extent; and I do not know that any fatal case has occurred during or after such treatment. On the contrary, I have had repeated experience that the cure of the eczema has been followed by relief of serious diseases, which have been caused by the distress and restlessness due to the eruption. I am therefore in favor of local treatment, combined with the constitutional treatment necessary for any dyscrasia which may be detected."

The translation has been done, as a whole, with great care and faithfulness, leaving nothing to be desired as far as concerns elegance of language and general clearness of expression. In the description of treatment the original has not always been given in its entirety, for reasons which the translator does not give. There are now and then errors in translation met with; but these are not very numerous, though in a few instances important, and needing correction as seriously altering the author's meaning. Among important ones noticed are the following: In the treatment of pneumonia (page 155), "when the fever abates" should read, "in order to abate the fever." Again, in the treatment of Bright's disease (page 277), "if there be hæmorrhage from the kidney" should read, "after the blood in the urine begins to decrease." In the chapter on tubercular meningitis (page 34), "the inflammatory condition stands to the granulations in the relation of cause" should read, "in the relation of cause and effect." In the treatment of typhoid fever (page 366), "starch and opium clysters being also used for the relief of the meteorism" should read, "for the relief of the diarrhœa when excessive." In the differential diagnosis of whooping-cough, "absence of *remissions*" (Reprisen) should of course read, "absence of the *whoop*." In the chapter on acute gastric catarrh (page 236), "diarrhœa occurring either simultaneously or soon after one another" should read, "diarrhœa and vomiting," etc. On the next page, where speaking of the prognosis, "the occurrence of collapse of brain symptoms" should read, "of collapse *or* of brain symptoms." In the chapter on intestinal obstruction (page 248), "sometimes the gut is prolapsed, with passage of urine and blood" should read, "with passage of mucus and blood." In the chapter on icterus neonatorum (page 264), "skin and urine remaining unaltered" should read, "urine and conjunctiva remaining unaltered." In the chapter on atelectasis pulmonum (page 159), the word emphysema is employed several times where atelectasis pulmonum is meant. "Pulmonary symptoms" (page 171) should read, "general symptoms." "Through urgency of lymphatics" (page 327) should read, "through agency of lymphatics." The sapo viridis (Schmierseife) has been translated "*Dutch* soap."

Several notes, chiefly relating to the surgical ailments of children, have been added by the translator and interspersed through the book. The most important one is with regard to the after-treatment of tracheotomy.

At the end, in form of an Appendix, have been given "Rules for Management of Infants," issued by the staff of the Birmingham Sick Children's Hospital. Although ready to indorse the translator's high opinion of the good example which the staff has set by freely distributing these rules amongst the poor, we think that their introduction in the present work is of questionable taste.

The thermometric observations as well as all measurements have been rendered in the Centigrade scale. This is a step in the right direction, and it is to be hoped that it will not be long before in this country we can say as Dr. Tait says of England, that "the metric system is rapidly superseding the old form of weights and measurements."

An alphabetical Index has been added by the translator at the end of the book, the absence of which still continues to be a very common fault in German medical works.

MURCHISON ON FUNCTIONAL DERANGEMENTS OF THE LIVER.[1]

THIS work does not need special criticism at our hands, for its author is known to be a distinguished master of the subject on which he has discoursed. His name has long been identified with careful original researches in this department of pathology, and he has given in this little book, the reprint of the Croonian lectures, a clear and comprehensive summary of the present state of medical knowledge concerning the relation of functional hepatic disorders to the various vital processes.

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[1] *On Functional Derangements of the Liver: Being the Croonian Lectures for* 1874. By CHARLES MURCHISON, M. D., LL. D., F. R. S., etc. New York: William Wood & Co. 875.

In the opening chapter, the author does excellent service in pointing out some of the more important physiological offices of the liver and in correcting the traditional and deeply-rooted error that the essential duty of that organ is to secrete bile. He shows that the liver contributes greatly to the processes of sanguification and of nutrition, and that it is probably the chief seat of the disintegration of albuminous matter and of the formation of urea; moreover, he maintains that the bile itself, although in part excrementitious, is destined in great measure to assist in the assimilation of food. Upon these more comprehensive views of the hepatic function he bases his classification of its derangements; the physician should not judge of these disorders by the quantity or the quality of the bile observed in the dejections, since their manifestations, according to our author, take a far wider range. Corpulence and emaciation, diabetes and gout, lithæmia, urinary calculi, various tissue degenerations, digestive disturbances, derangements of the nervous system, neuralgia, convulsions, paralysis, cardiac diseases, angina pectoris, even diseases of the skin — eczema, psoriasis, lepra, pruritus — may all be traced to a disturbance of the physological processes with which the liver is concerned.

In the section on treatment, Dr. Murchison pronounces in favor of mercury as the chief of cholagogues; the grounds for this preference are clinical rather than physiological. Mercury, the author says, produces bilious stools by irritating the upper part of the bowel and sweeping on the bile before there is time for its re-absorption; the liver may not be directly stimulated, but the blood is relieved of the bile and other products of disintegrated albumen which would otherwise enter it. Podophyllin acts in a similar manner to mercury. In the author's opinion, alkalies are of far greater utility than acids in the treatment of functional derangements of the liver.

Our brief abstract does only scant justice to the numerous instructive points comprised in this book. Although many of the matters discussed are likely to undergo revision under the present searching investigations of physiologists, the lectures are a valuable contribution to our literature, and the profession is under obligations for this very attractive reprint of them. D.

FOSTER AND BALFOUR ON EMBRYOLOGY.[1]

Our space does not permit us, even if our ability did, to attempt a thorough review of this work. Suffice it to say that it is excellent, and that if the two parts yet to come are equal to the first it will be one of the most valuable of recent contributions to science. But we should be wrong if we spoke of it as of purely scientific value; it is most desirable that every physician should have some idea of embryology, and this book opens the road to every one possessed of sufficient time and application. The subject, though very difficult, is clearly treated; patience only is necessary to understand it, and admirable directions are given to those who wish to pursue investigations. The progress of the embryo is traced day by day, with occasional retrospects for the better explanation of the development of various organs. We are sorry to find that the account of the development of the auricular septum does not agree with Rokitansky's, and we regret that there is no mention of Professor E. C. Morse's investigations of the carpus and tarsus of birds which were prior to those of Rosenberg, who is freely quoted.

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[1] *The Elements of Embryology.* By M. Foster, M. D., F. R. S., and Francis M. Balfour. Part I. London: Macmillan and Co. 1874.

This part is devoted to the development of the chick, which is a good starting point on account of the advantages it offers for study. The second will treat of other vertebrates, and the third part will discuss invertebrate embryology and treat of general morphological questions. The book is full of figures and diagrams which are essential to clearness, and doubly valuable from the beauty of their execution.

MAYNE'S MEDICAL VOCABULARY.[1]

THERE is a good deal of information to be gained from this unpretentious volume. Its careful study may prevent the appearance of many inaccuracies which are but too common in medical journals. Some definitions are not all that could be desired, and we think much might be omitted, but nevertheless there are few who could not peruse it with profit.

WILLIAMS ON DISEASES OF THE EYE.[2]

THIS edition does not differ from previous ones except in the title-page, and therefore calls for no extended notice. Without giving an exhaustive account of the subject, or one that ophthalmologists would think free from criticism, it will be of value to the general practitioner.

[1] *A Medical Vocabulary.* By R. C. MAYNE, M. D., and J. MAYNE, M. D. Fourth Edition. Philadelphia: Lindsay and Blackiston. 1875.

[2] *A Practical Guide to the Study of Diseases of the Eye.* By HENRY W. WILLIAMS, M. D. Fourth Edition. Boston: H. O. Houghton & Co. 1875.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

JAMES R. CHADWICK, M. D., SECRETARY.

APRIL 24, 1875. — Annual meeting. The President, DR. MINOT, in the chair. Seventy members present.

A Curious Result following Cicatrix of the Membrana Tympani, was reported by DR. C. J. BLAKE. A man, thirty years of age, had been under treatment for a purulent inflammation of the middle ear with destruction of the membrana tympani; the purulent discharge had been relieved, but a thin cicatricial membrane was found to have in part replaced the membrana tympani; it stretched across the anterior portion of the tympanic cavity and opening of the Eustachian tube. At a subsequent visit the patient was observed to speak peculiarly, suppressing the nasal sounds *m*, *n*, and *ng*, and substituting *b*, *d*, and *g*. The substitution was voluntary, as the full pronunciation of the nasal sounds was accompanied by a disagreeable noise and movement in the ear.

On examination it was found that with the pronunciation of *m*, the lax cicatrix in the middle ear across the opening of the Eustachian tube moved slightly outward, on pronouncing *n*, still further, and on pronouncing *ng*, a greater and double excursion was observed. These symptoms were put an end to and the patient relieved from his discomfort by making a circular opening in the lax cicatrix. On placing in the ear a manometer having a bore one millimetre in diameter, filled with water, a movement in the manometric column was seen on the pronunciation of the nasal sounds exactly corresponding to the movements of the lax cicatrix before the opening was made. The movements moreover were found to correspond to the logographic curves of *m*, *n*, and *ng*, and proved a regularly increasing pressure in the naso-pharyngeal space and Eustachian tube from *m* to *ng*. These degrees of pressure were also found to correspond to the degree of closure of the buccal cavity in sounding the nasal tones.

With *m*, the buccal cavity is closed at the lips, with *n*, by the tip of the tongue pressing against the bases of the upper incisors, and with *ng*, by the top and back of the tongue closing the buccal cavity at its posterior end. The case suggested a further series of pressure tests to be reported later.

Lead Paralysis. — DR. S. G. WEBBER called attention to a degeneration of the radial nerve found by Westphal in this disease. This lesion accounts for the pain and tingling sensation in the part, symptoms not as yet universally accepted. Soon after reading Westphal's article, Dr. Webber had been consulted by a young woman who was occupied as a type-setter; she had pain in her head and arm together with this peculiar tingling sensation. There was no blue line. The symptoms were unilateral and suggestive of cerebral disease. Iodide of potassium was given, and lead was found subsequently in the urine.

In another case of weakness in the right arm, though there was no blue line and no difference in electrical reaction, Dr. Webber was induced by the peculiar sensation to prescribe iodide of potassium, with a like result.

A section of the radial nerve was exhibited under the miscroscope, taken, however, not from a patient with lead palsy, but from one with myelitis. It presented the very changes described by Westphal as peculiar to lead poison, and consequently tends to throw doubt upon Westphal's view that the groups of circles, about the size of a nerve fibre, are nerve fibres in process of regeneration. In this case regeneration was impossible, as the disease of the chord had progressed steadily until death supervened. The changes seen were, however, almost identical with those attributed to lead paralysis.

Necrosis: Removal of Sequestrum by Decomposition. — DR. D. M. PARKER related his experience with this method of treating necrosis of the jaw, since it was first devised by him twenty years ago. After many trials he had settled upon nitro-muriatic acid as the most efficient solvent of bone without injury to the adjacent healthy tissues. The paper will be published in full.

DR. H. J. BIGELOW bore testimony to the good action of acid in removing thin scales of bone resulting from ulceration, but did not believe that thick sequestra would be penetrated by the acid, as claimed by the writer. The practical point, however, was that the persistent slight discharges from necrosis of the lower jaw may be safely relieved in the course of a few weeks without resort to a surgical operation.

Exstrophy of the Bladder. — A patient was presented by DR. H. J. BIGELOW upon whom he had operated by a new method. The result appeared to be far superior to that derivable from the old operations. The boy's present comfortable condition was made strikingly evident by comparison with the sad plight of Mr. Hayden, who is so well known in this city as a life-long sufferer from an incurable exstrophy of the bladder. Dr. Bigelow's case will be published shortly in this journal. Before adjourning, the members of the society subscribed $54.00 for the benefit of Mr. Hayden, who, owing to his infirmity, finds great difficulty in earning a livelihood.

Obstinate Vomiting of Pregnancy. — The case of a woman who had never borne children, but had had three miscarriages at about the end of the third month, was reported by DR. A. P. WEEKS, of Chelsea. When the patient was first seen on February 28th, the stomach rejected every kind of nourishment. The last menstruation had been early in January. Bismuth, oxalate of cerium, calomel and opium, blisters on the epigastrium, were tried with little if any effect. After slight relief for ten days, vomiting recurred with still greater violence. Alkalies, colombo, chloral hydrate, bromide of potash, creasote, hydrocyanic acid, etc., were successively tried and proved inefficient. The hypophosphite of lime internally and extract of belladonna painted upon the vaginal portion of the cervix uteri seemed to cause some abatement of the vomiting. On April 13th it recommenced, however, and blood was found in the ejecta. The emaciation and prostration were then so great, the pulse being 155, and feeble, that on April 17th, after consultation with Dr. Wheeler, labor was induced by means of tents and the administration of ergot. Twins were extracted; very little blood was lost; the vomiting stopped twenty-four hours after the delivery and the patient has since done well. The persistence of the vomiting in this pregnancy and the occurrence of abortion on those previous occasions appeared to have been produced by a shortened condition of the anterior vaginal wall, together with an induration of the connective tissue between the uterus and bladder; this prevented the uterus from rising in the pelvis as it enlarged, and by the traction kept it in a constant state of irritation.

Myelitis with Recovery. — DR. G. H. LYMAN reported the case which was published in the JOURNAL of May 20th. The regular annual reports of officers and committees were made and accepted. The list of officers already printed in these pages was elected.

A vote of thanks was then tendered the retiring President, and the new incumbent inducted into office with appropriate remarks.

At the request of the Secretary it was voted that those members who sent him the titles of their papers or cases a week before the meeting, and thus enabled him to announce the same in the notifications and in the JOURNAL, should have precedence over all others in the order of exercises at the meetings.

A blue bottle thickly covered with projections, to be used by druggists for poison, was shown by DR. CHADWICK, and its manifest greater safety pointed out. On his motion the following vote, as amended, passed: *Voted*, that this society recommends the use of a bottle for poisonous drugs which betrays both to sight and touch the dangerous character of its contents.

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THE MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.

WHEN this appears, the annual meeting of our State society will have been held, but we must defer to another number the account of the proceedings. The society has never been in so flourishing a condition, and we feel justified in predicting a most successful meeting. The change of time in the exercises of the second day will, it is hoped, prove a convenience to our country members, and will thus insure the representation of all parts of the State.

Through the kindness of the orator we are able to present abstracts of his address. Though reproducing but a small part, we think we have shown the scope of his discourse and the drift of his argument, with the exception of his views on the suppression of quackery, which our space does not permit us to go into. The greater part of the address is devoted to the woman question, which we think is most skillfully handled. While giving full assent to the unfitness of woman for the profession, and the difficulties of her acquiring an education, the orator raised the question whether some acknowledgment is not due to those who have surmounted these obstacles and show really high capabilities. A great objection, as he observes, is that it might appear as if the profession favored female practitioners; but the exceptional cases are so few and far between that it would soon be rightly interpreted as an acknowledgment of individual merit and not as an indorsement of the system. It is in this spirit that we give the following sketch of the life of a lady whose career many of us might be proud to emulate.

DR. SUSAN DIMOCK.

Dr. Dimock was born in Washington, North Carolina, April 24, 1847, and was lost in the wreck of the steamer Schiller, May 7, 1875. In her short life of twenty-eight years she acquired, in the face of many serious obstacles, an amount of medical knowledge and of surgical skill such as but few possess; and to these qualities she added a maturity of judgment and power of reasoning which are quite as rare. Her father, Henry Dimock, was born in Limington, Maine, and having obtained a collegiate education by his own exertions, was in 1831 head-master of the Roxbury High School. He afterwards taught school in North Carolina, where he studied law and married a Southern lady.

Until the age of twelve, Dr. Dimock was educated entirely by her parents, and her classical studies had advanced so far at this time that her father spoke of her as understanding Latin verse better than he did when he left college. In 1861, when she was fourteen years old, her school studies were interrupted by the war of the Rebellion, and by the death of her father. These trials, however, only served to ripen her judgment and to develop her character as no school-work could have done. Her interest in the study of medicine had already shown itself, and at this early period she determined to make it the occupation of her life, and firmly held to this resolution until she was able to carry it out some years later. Her Southern friends and some of the officers of the Southern army remember well her deep absorption in reading any medical book, however dry, which she could obtain. In the autumn of 1864, Dr. Dimock and her mother, who had suffered much and lost most of their property in the war, came North. For the next six months Miss Dimock was at school at Sterling, Mass., beginning at this time a course of systematic reading of medical books, which were supplied her by a friend in this city. The following autumn she taught school in Hopkinton, continuing her reading under the direction of Dr. Pratt of that place. After she had taught for one term her mother at last gave her full consent to her studying medicine, and at once she devoted herself wholly to her chosen work.

From her entrance into the New England Hospital for women and children, January 10, 1866, until her return from Europe, in 1872, all her time and energy were given to her professional studies. She lived in the hospital for two years and a half, making the most of every advantage offered her in the wards and dispensary. During this time she was admitted to attend the clinical visits at the Massachusetts General Hospital, and the clinics at the Eye and Ear Infirmary for a brief period. After her application for admission to the Harvard Medical School had been refused, she went to Zürich to avail herself of the advantages of the best instruction which was open to her. There, in spite of her previous unfamiliarity with the language, she soon stood among the first of her class, and in 1871 she was graduated with high honors.

The following year she spent in clinical studies at Vienna and Paris, returning to America in the summer of 1872, and at once, on the 20th of August, entered upon her duties as Resident Physician to the New England

Hospital for Women and Children. No sooner had she taken this position than she moved the hospital into its new building, and began at once to systematize the work of both nurses and students in such a way that their services extended to a much larger number of patients than was ever before the case. She also took charge of the dispensary for two days in the week, for the first two years of her hospital life, relinquishing it only when obliged to do so by the requirements of her hospital duties. The training-school for nurses, connected with the hospital, was completely reorganized by her; it was under her charge until just before her departure for Europe.

Her medical skill is attested by the hospital records, with their evidence of favorable results. Her success as a surgeon is also proved in these records by the numerous cases of important surgical operations followed by success. Her skill and self-command in operating no one can appreciate who has not witnessed it.

Few are aware of the loss the public and the medical profession have met with, in her untimely death. Those, however, who have worked with her, have learned fully to respect and admire her rare abilities; and to them, her loss can never be made up. Her brief and highly honorable career points surely to the high position she would have attained had her life been spared.

MEDICAL NOTES.

— The proprietorship of the New Orleans *Medical and Surgical Journal* has passed from the hands of Dr. Bemiss into those of Seymour and Stevens.

— Col. J. H. Baxter, chief medical purveyor of the United States army, recently graduated from the law department of Columbian University, and was admitted to the bar of the Supreme Court of the District of Columbia.

— Salicylic acid has been recently introduced into the surgical department of Bellevue Hospital, New York, and serves a much better purpose than carbolic acid. The great advantage it possesses is, that it is destitute of odor, while it thoroughly deodorizes all discharges that it comes in contact with. It is used in solution directly upon the granulating surface by means of a syringe or irrigator. The solution is made by combining and dissolving the following: Salicylic acid, one part; phosphate of soda, three parts; water, one hundred parts.

— At the session of the Society of Biology of April 10, M. Onimus reported his experiments upon the contractility of the heart and the muscles of the trunk of an executed criminal. Two hours after execution the right auricle still contracted spontaneously, or at least with very feeble excitation. The left ventricle only contracted with very powerful irritation. Two hours later, contractility still existed, but it was less marked. Electricity produced some fibrillar contractions, to which succeeded an entire movement. Of the muscles of the trunk, the intercostals longest preserved their contractility. The contractions were strongest from the positive pole. The continued currents produced contractions for a longer time than the induced.

— At a recent meeting of the Society of Biology, of Paris, M. Calmette presented very many sphygmographic tracings, showing perfectly the influence of the position of the arm upon the form of the tracing. If the arm were held vertically it was found that the tracings had all the characteristics of aortic insufficiency. An explanation of the fact is in the diminution of the arterial tension which is produced in this position of the arm, and in the facility with which the blood sent forth by the heart is reflected toward that organ after the systole. The conditions of aortic insufficiency are realized in such cases, and the tracings are of that lesion. Similar facts were observed in cases of typhoid fever, the markings varying with the position of the patient.

— The Medical Association of the State of Alabama offers a prize for the best essay on Bright's disease, which must be forwarded to Dr. Jerome Cochrane, of Mobile, Alabama, on or before the first day of February, 1876, and be accompanied by a sealed letter containing name and address of the author, which letter is not to be opened until after the adjudication is made. The prize essay is to be the property of the association, and to be published in its annual volume of transactions; and all unsuccessful papers will be returned to the address of the authors, honorable mention being made of any deemed of especial merit. The prize will be one hundred dollars in currency, with a certificate of the association suitably inscribed and bearing the seal of the association; or at the option of the successful author it will be wrought into a gold medal or plate, with a suitable legend and a fac-simile of the seal of the association engraved thereon, to be of the full value of one hundred dollars, less the price of manufacture.

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LETTER FROM LONDON.

Messrs. Editors, — Just now the principal professional societies here close their winter session, during which alone they hold their meetings; it seems, therefore, a suitable season for me to refer to some of the work recently before them. As many of your readers will have learned from the extended reports which appear in the British weekly medical periodicals, there have been very many unusually interesting and important questions under discussion at our medical societies during the past session. But though the debates have been earnest, prolonged, and instructive, they have served to record the divers opinions of numerous observers, rather than to elucidate and settle the important point at issue by distinguishing between facts and fallacies.

The most notable instance of this will be found upon reference to the *Lancet* reports of the Pathological Society's debate on the germ theory of disease. After occupying three entire evenings this debate has effected little, if aught, more than to point out numerous special directions in which extensive and careful original research is necessary before the subject can be considered ripe for beneficial discussion.

Perhaps I shall be forgiven if I remind you that Dr. Bastien, the author of the paper referred to, is a champion of the doctrine of spontaneous generation; this reminder may serve to explain the complacent manner in which he styles an hypothesis "the theory," and will in a measure account for the tactics used by him in his reply, which, when published, will afford fresh data for estimating the value of the support derived by a weak argument from the attempted importation of uncalled-for personalities.

A paper recently read at the Royal Medico-Chirurgical Society, of London, by Mr. Acton, a well-known writer on prostitution, has proved the one necessary and glorious exception to what I have already mentioned as a rule. This paper, which was on the prevalence and severity of syphilis among the troops quartered in London, as compared with the rarity of the disease among soldiers in the garrisons of Paris and Brussels, from observations the result of a personal investigation made during the autumn of 1874, sufficed to prove the immense sanitary influence effected by the enforcement of legislative enactments concerning prostitutes afflicted with communicable, contagious disease. Mr. Acton deduced from his figures that at the present time there was more venereal disease in a single battalion of London foot guards (500 strong) than among the whole garrison of Paris, consisting of 3841 men.

His own experience, and that of several who took part in the debate upon his paper, was corroborative of the greater severity of venereal disorders in London than in either Paris or Brussels, and of the cases met with in a protected district here being of a far milder type than those seen in towns not under the operations of the Contagious Diseases Acts. In a paper which Mr. Acton read before the same society in 1860, he recommended the regular supervision of prostitution as an experiment justified then only by continental experience; but on the occasion of which I am now writing, he spoke of that experiment as having been made in fourteen British towns, enabling him now to show that it had been successful even beyond the expectations of its supporters.

The party which exerts itself for the repeal of the Contagious Diseases Acts (as they are commonly styled) was represented by Drs. Drysdale and Birbeck Nevins. The remarks of the former were moderately reasonable, as he confined them to depreciating the efficiency of the acts in reducing syphilis amongst the civil population. But what fell from Dr. Birbeck Nevins was most characteristic of the party whose champion he is, his observations often being altogether foreign to the main issue of the question, and quite unsupported by evidence other than such (if it is to be honored with the title of evidence) as he fancied he could deduce from the comparison of isolated years; thus he compared a single year showing a low rate of venereal prior to the operation of the acts with a particular year having a high rate since the acts, and entirely omitted to recognize one possible source of great error in handling the army reports, namely, that since 1869 cases of secondary syphilis have been returned under one head, whereas prior to that year they were grouped under three heads: "secondary syphilis," "syphilitic iritis," and "syphilitic cachexia."

The following paragraph from the Report of the Royal Commission of 1870 upon the operation of the acts, which is always quoted with great triumph by their opponents, was well explained by Mr. Timothy Holmes, who sat upon that commission: "There is no distinct evidence that any diminution of disease amongst the men in the army and navy which may have taken place is attributable to a diminution of diseases contingent upon the system of periodical examination among the women with whom they consort."

Mr. Holmes showed that the passage could have but little value, being founded upon want of evidence, as at the date of the report from which it was quoted, the system of periodical examination of prostitutes had been too recently introduced to afford evidence as to its results. He said that the above sentence was protested against by a large minority, comprising all save two of the medical members of the commission. Mr. Holmes stated that the medical officers who had men under their charge affected by the working of the acts were unanimous in the opinion that not only had disease been materially diminished, but its severity had been decreased; and that this, far more than any amount of figures, called for a fair trial of the acts, and parliament should resist opposition to the extension of these acts as strenuously as it in former times resisted opposition to compulsory vaccination. Surgeon-Major De Chaumont exhibited a table showing the influence due to the introduction of recruits, which forms an important element in estimating the prevalence of venereal disease amongst troops. This he termed the "epinozoic" (prone to disease) element, and demonstrated the important relation its ratio bore to that of venereal disease in a regiment. This paper and discussion came at a most opportune moment, as only a few days previous the association for the repeal of the Contagious Diseases Acts had commenced to infest the country with the first issue of the *Medical Enquirer*, a monthly journal, the only beneficial effect of which is likely to be experienced by the quarter of a dozen of medical practitioners who utilize it as a cheap and effectual medium for advertising their addresses, qualifications, and specialty.

The extreme folly of the so-called arguments of the association was shown in the fact of one of its representative medical officers imagining he had proved that the working of the acts had operated to increase rather than diminish syphilis in the army. The most charitable criticism that I am able to pass upon those who, not being ignorant, still oppose legislative interference in the matter is, that they reason from figures and blue books, but do not touch facts.

The prosecution of obstetric practice threatens to become a most hazardous undertaking here. Quite recently a midwife has been convicted of manslaughter, and sentenced to six months' imprisonment for causing the death of a woman by conveying to her puerperal fever after medical men and others had repeatedly cautioned the accoucheuse of the risk she ran by continuing to follow her avocation whilst puerperal fever was rife amongst those she had recently delivered.

Within a few months, a medical man has received a like sentence for having in the perplexity of the moment removed with scissors a large portion of intestine which prolapsed through an extensive rupture of the vagina.

The criminal liability of medical practitioners in the exercise of their necessarily perilous calling is a subject of the highest importance, and one that deserves to be defined by the light of the most recent observations, and ought not to be hastily decided as a precedent by coroners and criminal judges, who are of necessity incapable of calmly and impartially taking and weighing evidence of a nature quite new and appalling to them. It is to be hoped, therefore, that the whole subject will, at an early date, be investigated by an influential committee of medical men; of this there is considerable hope, as Dr. Matthew Duncan has introduced it into the debate now going on before the Obstetrical Society of London, on Mr. Spencer Wells' paper, On the Relation of Puerperal Fever to the Infective Diseases and Pyæmia.

Much stir has been created here by the system of ventilation which has been patented by Mr. Tobin, of Leeds, a merchant who was probably better known in your country than on this side of the ocean which he has crossed forty-four times. Tobin's system of ventilation was fully and fairly described in the *Times*; this drew Captain Galton, the patentee of a rival plan, into what would have been a newspaper controversy had it not been for the one decisive blow which his arguments received from the pen of Mr. Brudwell Carter, whose patients in the ophthalmic wards of St. George's Hospital were luxuriating in fresh air supplied to them by Tobin's method. But last week Captain Galton received a more humiliating defeat than it often falls to the lot of common-sense persons to experience. Mr. Carter invited a very select party of thirty, which included two dukes, an earl, some engineers, a chemist, representatives of the press, and Captain Galton, to inspect the ventilation of one of his wards. The last-named gentleman having been furnished with a lighted taper, started in diligent search for the draught which he said must exist; when he believed himself successful in finding what he desired, he called those present to witness what proved naught more than a mare's nest.

I hope in my next letter to give you the opinion of the committee which has been appointed to report on the Tobin method, though I have little hesitation in expressing my belief, from the knowledge I have of the matter, that their report must be most favorable.

London, *May* 13, 1875.

HARVARD MEDICAL SCHOOL.

FRENCH OR GERMAN FOR LATIN.

Messrs. Editors, — When in 1871 the plan of study was so radically changed in the Harvard Medical School, every lover of scientific attainment rejoiced as in the dawn of a perfection not yet realized in this country. The plan making a satisfactory examination in one department of study to be the passport to another, and the diploma to be a certificate of actual accomplishment rather than of time spent, places the question upon the basis where all truly scientific instruction must rest.

We have many good medical schools, but the one of Harvard is the only one that has taken the bold and decisive step toward the change so much needed; and when, a few weeks ago, it was announced that an entering examination would be required, it was cause for congratulation, being another step toward the desirable end, tending to bring better developed and more fully disciplined minds to the study of medical science.

But there is one thing I am not in sympathy with, and cannot understand the wherefore of, and that is, the substitution of French or German for Latin in the entrance examination.

The Latin language is the universally acknowledged philological foundation of scientific literature, and indeed of all literature whatever. There are many reasons for this, chief among which is, it is a dead language and therefore not subject to the changes of one which is spoken. True, the Latin of the present is not quite the Latin of Cicero, but it is more nearly changeless than any other language made practicable. When the Harvard Medical School made a knowledge of Latin to be one of its conditions of matriculation it did well, and what ought to be done by every school claiming to teach medical science; but why should French or German be considered as a substitute? Are we never to be done with a sickly sentiment concerning the language and literature and customs of other nations? The matter in consideration savors of the same senselessness as does the custom of putting in the left-hand lower corner of cards of invitation the Frenchy initials, " R. S. V. P." instead of the simple " Please Reply " of our own language. In France the French, and in Germany the German language as a substitute for Latin, would have some show of sense; but I do not see why we should adopt any foreign living language into any school, scientific or otherwise, in this country. If anything is to take the place of translation of easy Latin prose, let it be the elements of English grammar.

MARTIN BRUCE, M. D.

BRATTLEBORO, VT., *May*, 1875.

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WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending June 5, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire there is a gratifying absence of acute diseases. Pneumonia and rheumatism are the only ones deserving mention.

In the Connecticut Valley influenza, diphtheria, and rheumatism prevail. Holyoke reports one case of varioloid. Ashfield has cases of cerebro-spinal meningitis. Granby has had an unusual prevalence of catarrhal ophthalmia.

In Worcester County the prevailing diseases are bronchitis, rheumatism, pneumonia, and influenza. Westborough reports an epidemic of measles. Linwood has one case of small-pox. " German measles " has appeared at Winchendon.

In the northeastern counties there is but little sickness; rheumatism is the most prevalent affection. Cholera morbus is reported as present in a few towns. " German measles " has a limited prevalence. Waltham reports conjunctivitis as epidemic.

The Metropolitan section reports a return of the measles, more than half the observers mentioning it. Pneumonia and rheumatism continue. Dysentery is reported by several physicians. Diarrhœa, diphtheria, scarlatina, and whooping-cough have all declined. "German measles" continues to be reported.

In the Southeastern counties bronchitis, influenza, rheumatism, and scarlatina prevail; the latter has increased considerably during the week. Diarrhœa is more prevalent than usual.

In the State at large rheumatism and scarlatina have increased in prevalence; all the other diseases have diminished.

Scarlatina has its greatest prevalence on the Cape; measles is most rife in and near Boston; diphtheria is in the Connecticut Valley and in Worcester County.

F. W. Draper, M. D., Registrar.

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COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING MAY 29, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	524	26
Philadelphia	775,000	355	24
Brooklyn	450,000		
Boston	350,000	155	22
Providence	100,000	24	12
Worcester	50,000	19	20
Lowell	50,000	6	6
Cambridge	44,000	22	26
Fall River	34,200	17	26
Lawrence	33,000	15	24
Springfield	33,000	4	6
Lynn	28,000	9	17
Salem	26,000	11	22

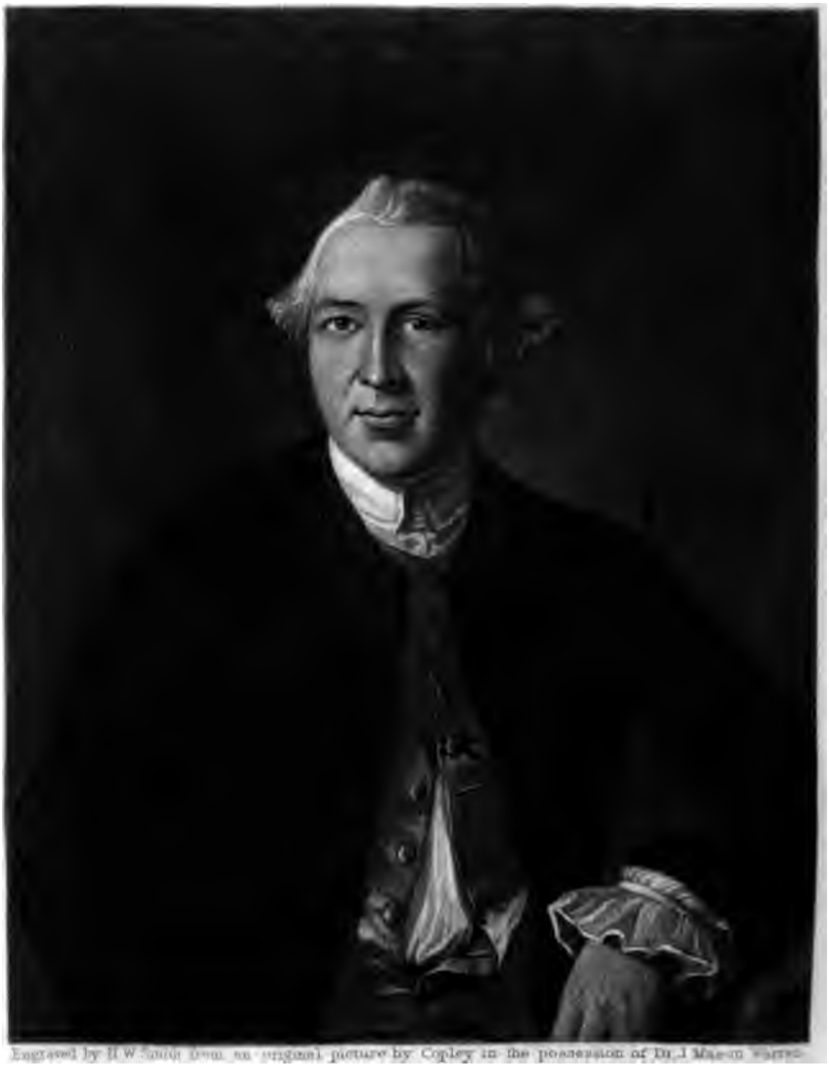
Books and Pamphlets Received. — Nose, Throat, and Ear. Instruments and Remarks. By Thomas F. Rumbold, M. D. St. Louis: A. M. Leslie & Co. Third Edition.

Rest in the Treatment of Nervous Diseases. By S. Weir Mitchell, M. D. Vol. I. No. 4 of American Clinical Lectures. New York: G. P. Putnam & Sons. 1875.

The Pathology and Etiology of Pulmonary Phthisis in Relation to its Early Arrest. By E. Darwin Hudson, Jr., M. D. (Reprinted from Transactions of New York Academy of Medicine.) New York: D. Appleton & Co.

Medical Addresses. By B. E. Cotting, M. D. Harv. Boston: David Clapp & Son. 1875.

Notice. — We are requested to state that those members of the Massachusetts Medical Society who did not receive a copy of Dr. Cotting's Medical Addresses yesterday, and who desire to have the book, may obtain it by addressing the publishers, Messrs. D. Clapp & Son, 564 Washington St., Boston, before July 1.



Engraved by H.W. Smith from an original picture by Copley in the possession of Dr. J. Mason Warren.

Joseph Warren

THE BOSTON
EDICAL AND SURGICAL JOURNAL.
VOL. XCII. — THURSDAY, JUNE 17, 1875. — NO. 24.

JOSEPH WARREN.

TRAINED in the holy art whose lifted shield
Wards off the darts a never-slumbering foe,
By hearth and wayside lurking, waits to throw,
Oppression taught his helpful arm to wield
The slayer's weapon: on the murderous field
The fiery bolt he challenged laid him low,
Seeking its noblest victim. Even so
The charter of a nation must be sealed!
The healer's brow the hero's honors crowned,
From lowliest duty called to loftiest deed;
Living, the oak-leaf wreath his temples bound,
Dying, the conqueror's laurel was his meed,
Last on the broken rampart's turf to bleed
Where Freedom's victory in defeat was found.

OLIVER WENDELL HOLMES.

THE MEDICAL PROFESSION IN MASSACHUSETTS DURING THE REVOLUTIONARY WAR.

BY GEORGE B. LORING, M. D., OF SALEM.

THE connection of the medical profession with the most important social and civil events of modern times forms one of the most interesting chapters in the history of man's intellectual endeavors and achievements. The part performed by cultivated men in all times for state and society constitutes indeed the spirit and genius of all that has been accomplished and recorded — is the inspiration which gives true power and greatness to material success. Great wars, great dynasties, great popular movements, are only great as they develop and establish the foremost mental and moral effort which attends them. And so we watch and ponder upon the learned men, the great craft of scholars, the representatives of those powerful professions for whose cultivation the universities and schools are founded by all people who hope and desire to perfect their condition on earth. The culture of the church; how we trace the radiant path it has followed through the great civil commotions! The mental faculties and accomplishments of the law; how we admire the grandeur of the work they have performed for man's safety and happiness! The intricate and exhausting and discouraging toil of the physician; what a combination of mental and moral forces it requires, and what a strong and intimate bond it creates between him and the great family of man! To him, indeed, men are the moving springs of society, asking for strength to perform their work, and offering their confidence to him who, while helping and cheering them in the dark hours, deserves it. The medical mind of a state has, therefore, a great opportunity. By natural instinct, by education, by experience, it is prepared to comprehend the springs and motions of human action, and it may, if it will, approach great popular questions with enlarged faculties and quickened sympathies. Not perhaps for the details of public life, but for a just understanding of public duties the capable and educated physician may be eminently wise and comprehensive and just. The powers which he exercised in the olden days when ecclesiasticism and empiricism were enthroned in his mysterious temple; the influence which he exerted when his science and literature filled the great libraries and formed the curriculum of the great schools; the faculties which he was compelled to use as the constant attendant on great warriors and orators and scholars, — all fit him especially for that larger and broader service which falls upon him when he becomes a member of a more enlightened and liberal form of society, and is surrounded by powerful popular efforts and stirring popular events. When Cicero made Asclepiades his friend, and Cæsar decreed that all physicians in Rome hould enjoy the privileges of citizenship, they recognized those qualities n the profession, its value and relation to society, which have in our own country brought the medical mind prominently into public affairs, watchful of public health and safety, and receptive of the best popular hought.

The annals of the medical profession in America are full of the pub-ic services of its leading and distinguished members. Leonard Hoar, a graduate of Cambridge in 1650, studied medicine and took his degree n England, and returned to Massachusetts to be made president of Harvard University. John Rogers, after preparing himself to practice medicine, was also made president of Harvard. So also was Charles Chauncy, who not only studied medicine himself, but sent six sons into he profession. Thomas Thatcher, the great divine and first minister of he Old South Church in Boston, was also famed for his thorough knowledge of medicine. John Winthrop, of Massachusetts, was an ex-cellent physician as well as an illustrious governor; and John Win-hrop of Connecticut "practiced so extensively that but for his more distinguished title in the State, he would have been remembered as the Doctor."

The influence and power of the medical profession during the colo-nial, provincial, and early constitutional periods of our country were very great. Not only did those engaged in practice in the various owns exercise great weight in public affairs, but many of the leading and educated men in other walks in life, especially among the clergy, elt that their work could not be complete without sufficient knowledge of the healing art to enable them to meet any emergency which might arise, and to secure the entire respect and esteem of the community n which they lived. The clergymen, it is true, had great control over the minds of the people, and the tribute of respect so often paid o "the ministerial aristocracy of New England" is well bestowed upon a body of men who, with great minds and fervent hearts, bore the ark of the covenant at the head of the advancing column through the dark and dreary years of our early history; but their dogmas were not always accepted, and their occasional surrender to superstition was ilently remembered and deplored. The power of the law was felt always; but commanding as were the faculties engaged in this great profession in which the human mind achieves its most brilliant victories, he law did not receive the sympathy of the people, for its weak men were suspected while its strong men were admired and obeyed; and oo often in our history was the statement made by William Symmes, r., of Andover, to Isaac Osgood, clerk of the courts in Salem, in an unpublished letter, dated October, 1786, that "The profession by which I am to get my bread, nay the very court in which alone I can t present exercise it, is decried, — the supreme judicature itself is insulted with impunity," painfully true. Through all this time, however, the position of the physician remained unshaken. In the business of the town he stood foremost — his estate often standing first on the list of tax-payers and property holders. In domestic affairs, in the homes and at the firesides, he was always welcome as a friend, companion, and comforter. His counsel was sought in prosperity, and his sympathy and knowledge were always appealed to in adversity and trial and sickness. It was the physician, therefore, who was often the best exponent of popular feeling, the best instructor of popular thought; and there are those now living who have witnessed the influential position held by the wise and good and strong of this profession in many a New England town, whose influence and renown were founded by a line of sagacious and cultivated physicians. True, they were not always foremost in public life; but they encouraged those who were, and were always ready for any crisis which might arise in the eventful period of our colonial and revolutionary history.

The courage and devotion manifested by the profession generally throughout all the American colonies during the opening scenes of the Revolution, and the long-continued trials of the war, are entitled to our profound respect and admiration. Against the pressure of social influence in the large colonial towns, where offers of titles and privileges were freely made by emissaries of the crown, and where predictions of anarchy and ruin were constantly poured forth by the timid and mercenary; against the temptations held out by the wealthy and ruling classes, and the threats hurled at them by their most powerful and profitable patrons, the physicians of the land were generally ardent and self-sacrificing in the cause of freedom. In the patriotic assemblies of the country they held high place. On the list of the signers of the Declaration of Independence are to be found the names of three of the most distinguished of their number: they are —

BENJAMIN RUSH, who to his great attainments as a physician and scientist added the work of the accomplished scholar and wise statesman. Having almost exhausted the entire range of therapeutics, he turned his attention to letters, and in a volume of carefully written essays, discussed the public schools of his native State, — the mode of education proper for a republic, — the value of the classics in a liberal education, — the best mode of female education, — the amusements and punishments proper for schools, — a plan for a peace-office in the United States, — the progress of population, agriculture, etc., in Pennsylvania, — the diseases of the mind; and prepared papers upon an infinite variety of practical subjects, and eulogies upon all his distinguished friends. As a physician he was bold, sagacious, wise, and successful; as a scholar he was brilliant and accomplished, and as a statesman he was patriotic, far-seeing, and independent. Believing in popular intelligence as the sound foundation of all true republican institutions, he devoted himself so faithfully to the education of the people, and to a careful observation of their intellectual progress, under the influence of the government which he had done so much to found, that at the close of the last century he was encouraged to declare: "From a strict attention to the state of mind in this country before the year 1774, and at the present time, I am satisfied the ratio of intellect is as twenty are to one, and of knowledge as a hundred are to one, in these States, compared with what they were before the American Revolution." He indeed brought to the duties of the very dawn and the morning hours of the republic an American mind and an American heart.

JOSIAH BARTLETT, a native of Massachusetts, and an adopted son of New Hampshire, had the high honor of casting the first vote given in the continental congress in favor of independence, and of affixing his name to the Declaration next to that of the illustrious president. Dr. Bartlett entered in early life upon the practice of medicine and won great distinction. He became, on account of his decision of character and his integrity, a favorite of Governor Wentworth; and as the popular protests arose he became for the same qualities a favorite of the people of his province. Having been deprived of all official position by the royal governor who had bestowed it upon him, he became at once the servant of his fellow-citizens; and, as commander of a regiment appointed by the provincial congress, a delegate to the continental congress, chief justice of the supreme court of New Hampshire, and governor of that commonwealth, he manifested a versatility of talent, an immovable strength of purpose, a quick and penetrating mind, and a sound and prospective judgment, which gave him a foremost position among the patriots and statesmen of our revolutionary, confederate, and early republican period.

MATTHEW THORNTON, also one of the signers of the Declaration of Independence, commenced his public career as a practicing physician in the town of Londonderry, New Hampshire. He espoused the patriot cause with great zeal, and was its most eloquent advocate in that province. He was chosen member of the continental congress, was appointed chief justice of the court of common pleas, and judge of the superior court, serving his country and his new-born State wisely and faithfully. It was a grandson of this distinguished patriot, James Thornton, who had high command on board the Kearsarge in her brilliant and victorious conflict with the Alabama.

Of the illustrious professional brethren throughout the country, who in less conspicuous position shared the glory of these three most eminent, it is simply necessary to remind ourselves, before turning to Massachusetts, that among them are the names of DAVID RAMSAY of

South Carolina, the ardent patriot during the war, and the strong adviser of peace and reconciliation at its close; of CHARLES RIDGELY, eminent as physician, jurist, and statesman in Delaware at the time of the Revolution; of JOHN THOMAS, a son of the old colony, who when a youth joined the continental army at Cambridge, served through the war, and led an honorable and useful life at its close in New York; of JAMES TILTON of Delaware, the great hospital organizer during the war, the devoted patriot and soldier from White Plains to Yorktown; of PHILIP TURNER of Connecticut, the able surgeon-general of the eastern department from the opening to the close of the conflict; of WILLIAM SHIPPEN of Pennsylvania, the accomplished and brilliant surgeon-general of the entire army; of HUGH WILLIAMSON of Pennsylvania, a devoted friend of liberty in the New World, and its vigilant supporter in the old; of SAMUEL WILSON of South Carolina, one of "Marion's men;" of JOHN BEATTY of Pennsylvania, colonel in the continental army, taken prisoner at Fort Washington, an active and faithful commissary of prisoners until the war ended; of WILLIAM BRADFORD of Rhode Island, a "pillar in the cause of the Revolution," and an early senator in congress; of SAMUEL TENNEY, born in Topsfield, Massachusetts, a young physician in Exeter, New Hampshire, at the breaking out of the war, a surgeon at Bunker Hill, mate to Dr. Eustis, and a witness of the surrender of Burgoyne and Cornwallis, a patriot, and a scholar.

To the work performed by the medical profession of Massachusetts during the Revolutionary War the commonwealth can turn with peculiar pride and satisfaction Of fifty surgeons in the continental army, who so distinguished themselves as to be deemed worthy of biographical notice, and whose names are found in the history of the conflict, nearly twenty were from Massachusetts. From the principal towns of the commonwealth, — from Boston and Salem and Haverhill and Newburyport and Lynn and Sandwich and Pittsfield and Danvers and Andover and Ipswich, and many other of the prosperous municipalities, — the members of this profession stepped promptly and bravely forth to their duty. Boston alone, not then a very populous town, sent six, most of whom were distinguished, some of whom were illustrious. The leading members of the profession there were divided in sentiment, it is true, and from among them each side drew many accomplished and able surgeons. The wealth and social elevation of the town was generally against the cause of the patriots; and it is interesting to trace now the uprising of professional and civil powers and distinction from the inferior position then held by the sympathizers with the Revolution, and the steady decline of those who at that time wielded the professional and social power of the town. It is not necessary to discuss those who were displaced; but we can turn back now and contemplate with reverence and admiration the spot whence sprang, in large measure, the renown and influence of Boston, in war and in peace, in science and the State. When the two brothers, Joseph and John Warren, left their comparatively humble home in Roxbury to enter upon their career as physicians in Boston, they were by no means surrounded by circumstances which appeared to promise either distinction or success. Joseph Warren, the older of the two brothers, secured a good professional reputation and made his office attractive to young students, even while he himself was a young practitioner; but he had talents which led him naturally into public life and overshadowed the less conspicuous qualities which belonged to his profession. John Warren, an ardent young student, graduated at this little school and did not even find encouragement to settle in the town. And these are the two young men whose names stand in history to-day as types of the most manly virtues, the highest purpose, the most brilliant career, each in his own path through life.

JOSEPH WARREN, in his short and eventful life, is one of the most attractive characters in American history. By birth removed from the trials of poverty on the one hand, and from the jealousies and temptation of high station on the other, he possessed an admirable combination of strong and substantial mental faculties, and personal courage, perseverance, generosity, and an independent deportment. He was so good a student as to win the respect of his eminent teacher, Dr. Lloyd, so good a practitioner as to know almost by instinct how to contend against the fatal plague of the times, and so well organized a man that his character was especially admired by the mass of people to whom he naturally belonged. It was said of him that "his personal appearance, his address, his courtesy and his humanity, won the way to the hearts of all, and his knowledge and superiority of talents secured the conquest." His versatility must have been almost unbounded. A graduate of Harvard, and a student of Dr. Lloyd's, he was the friend and companion of the cultivated gentlemen of Boston, and a rising guide and authority in his own profession. A popular leader, he applied his knowledge to every form of persuasion: as an orator of rare physical and intellectual faculties; as a speaker in town-meeting and assembly and caucus of unusual power; as a writer in many forms in the public press; as an associate in a courtly and dignified manner of the patriotic mechanics of the town; he was bound to Paul Revere as a brother and companion by the most sacred and secret ties; and he filled the popular mind with his political faith and the popular heart with his enthusiasm. During the twelve years in which he practiced his profession in Boston, he succeeded in maintaining his relations to his associates in this walk in life by his good temper, his good sense and good judgment, and constant and careful study. Separated as he was from many of them by his political views, he always retained their respect and confidence by the evident depth of his convictions and by his sublime and earnest declaration of his faith. And during all these twelve years, also, he found time to prepare himself for the most elaborate discussion and the most intelligent defense of his opinions. He attracted to himself all men, the great and the small, who believed in popular freedom, and in a government founded on the consent of the governed. The people hung upon his lips, while those in power, who gathered to insult him, quailed and were hushed into silence by the strength of his eloquence. The great men leaned upon him. A professional accident brought him and John Adams together, and nothing but death separated them. As a member of the committee of correspondence he was brought into intimate relations with James Otis, Samuel Adams, Josiah Quincy, John Bradford, and many other ardent patriots; a committee of which Bancroft says: "The two most important members were Samuel Adams and Joseph Warren, the first now recognized as a masterly statesman and the ablest political writer in New England; the second, a rare combination of gentleness with daring courage, of respect for law with the all-controlling love of liberty. The two men never failed each other, — the one growing old, the other in youthful manhood, thinking one set of thoughts, having one heart for their country; joining in one career of policy and action, differing only in this, that, while Warren still clung to the hope of conciliation, Adams ardently desired, as well as clearly foresaw, the conflict for independence."

Not only was Warren equal to this duty and this association, but as time went on he grew into the stature required for larger and higher service. When the provincial congress assembled in Concord, October 11, 1774, Joseph Warren was the leading spirit among the great men who gathered there. Young as he was, his counsels were accepted with respect and confidence, and his associates were the wise men of Massachusetts in that day. Frothingham says: "There were returned from the towns in Suffolk County, besides Cushing, Samuel Adams, Hancock, and Warren, William Heath and Benjamin Lincoln, generals throughout the Revolutionary War; from Essex were John Pickering, Azor Orne, Jonathan Greenleaf, and Elbridge Gerry, who were distinguished in political life; from Middlesex were Nathaniel Gorham, a prominent member of the convention that formed the Federal Constitution, William Prescott, and Thomas Gardner, colonels in the Bunker Hill battle; Richard Devens, an active member of the committee of safety, James Barrett, the commander of the militia at Concord on the 19th of April, James Prescott, subsequently a judge, and Henry Gardner, soon to be treasurer; Hampshire returned Seth Pomeroy, a veteran of Louisburg fame, and Joseph Hawley, a patriot of decidedly the largest influence in the western part of the province; Plymouth sent James Warren, a pioneer patriot, who became president of the provincial congress; Bristol, Robert Treat Paine, the poet and jurist; and York sent James

Sullivan, the scholar, statesman, and future governor; from Worcester came Artemas Ward, the first commander of the colonial army, and Moses Gill, and Timothy Bigelow, distinguished in political life." In this body his work was incessant and important. He wrote letters full of firmness, conciliation, and wisdom; he was placed on the committee of public safety; he wrote a long and spirited letter to the committee of Middletown, Connecticut, rousing their zeal and attention; he penned his famous letter to Josiah Quincy, in London, in which is found this historic passage: "It is the united voice of America to preserve their freedom or lose their lives in defense of it;" he wrote national songs to inspire the people; he kept Samuel Adams apprised of every step in the great drama; he poured forth his second oration on the Boston Massacre to an astonished audience of British officers, tories, and patriots; he toiled still in the provincial congress; he corresponded with Arthur Lee and Franklin in London; he prepared himself for military service; he resolved to quit his profession and devote himself to his country; he warned the patriots of Concord and Lexington of the enemy's designs, and he joined in the conflict to prevent the invasion, "animating his countrymen to battle, and fighting by their side;" he met with the third provincial congress; he was elected president of that body; he proposed a form of government "for the union and interest of all America;" he wrote and spoke continually to the people, to Arthur Lee, to Samuel Adams, to the committee of safety; he was chosen major-general of the Massachusetts army; he sat until the last hour with the provincial congress at Watertown, stood with Putnam in the work of disciplining the troops and urging them forward from Cambridge to Bunker Hill, defied all physical weakness and pain, joined the American forces as a private, inspired Putnam and encouraged Prescott, engaged in the last desperate struggle to hold the redoubt, and was shot dead, probably the last man to fall, just as his countrymen were leaving that field made immortal by his death, and elevated to an inspiration for the war by the greatness of his example. From that hour to this, a grateful and admiring people have striven to do honor to his memory by speech and song and monument, and his name has been a watchword of liberty and patriotism throughout the world. By his living voice he inspired, and by his death he sanctified, a great cause of self-government and of popular freedom and elevation. By his martyrdom he planted the seed of this great harvest whose bounties are now spread out on this continent for men of every race and condition asking to be free.

JOHN WARREN, who by the death of this fascinating and patriotic young physician, statesman, and orator was left alone of the noble pair of brothers, deserves much more than a passing notice in any sketch of the distinguished members of the medical profession of Massachusetts in any era of her history — much more than the limits of this paper will allow. He was a most remarkable man. That simple and high-toned honor which sent Joseph Warren forth, and which was scorned and derided by the invaders and their friends, sent forth also John Warren, stricken while yet a child with the same sudden sorrow, nourished and taught by the same mother, heir of the same characteristics, to a prolonged career of honor and usefulness. There is no more touching picture in history than that of this young man, leaving his new home, closing suddenly and forever his career there, to search for the dead body of his illustrious brother on that unexpected battle-field. There is no more charming chapter than that which records his future service, his tender care of his grief-stricken mother, his great work as surgeon in the American army under Washington, his constant devotion to the cause of medical education, — that privilege which cost him so much youthful sacrifice and trial, — his rapid rise to the head of his profession, his high value and influence as a teacher, his honorable and useful position in society. Less ardent and less eloquent than his brother, he was equally resolute, high-toned, determined, and sagacious. Under the influence of his touch the medical profession was filled with new life and greater intelligence. And when he closed his long and disinterested life he left behind him an enlarged and expanded system of medical investigation, an illustrious example of a wise and patient and self-sacrificing physician, and a community filled with sorrow that the last of the two great brothers was gone.

But not here does the long line of distinguished sons of Massachusetts, who as surgeons and physicians gave her an honorable record in the revolutionary war, cease. When Warren entered the service of his country he was followed by two young men, his students and admirers, William Eustis and Samuel Adams.

William Eustis, "of polished manners and gentlemanly address," a Boston boy and graduate of Harvard, commenced on the 19th of April, 1775, a striking and useful public career. As army surgeon in the war, a friend and confidant of Washington and Knox, a member of the legislature of Massachusetts and of the executive council, member of congress, secretary of war, ambassador to Holland, governor of the Commonwealth of Massachusetts, he acquitted himself well, and set an example of wise and honest statesmanship to those who followed him.

Samuel Adams, son of the great revolutionary organizer, also left Dr. Warren's office to commence his service at Lexington and Bunker Hill, and wore out his life in the discharge of his duties as army surgeon during the war.

John Brooks, a farmer's boy from Medford, "bound apprentice" to Dr. Tufts for seven years, a youthful friend of Count Rumford drilled the boys of Reading, where he commenced the practice of medicine, and took part in the work of driving the British troops from Lexington and Concord. He was found on the night of the 16th of June, 1775, throwing up intrenchments on Bunker Hill. He manifested great skill as a soldier, and was associated with Steuben in drilling the army. He was the trusted friend of Washington, and was foremost in breaking up the conspiracy formed against him at Newburgh. As governor of this commonwealth, he bore himself with the same dignity and judgment which had characterized his career as a soldier; and he was a most faithful, devoted, and intelligent physician.

Of the rest, we can turn with pride to the work performed by MARSHALL SPRING, who was found on the plains of Lexington, caring for the wounded, even while doubting the cause in which they fell; by JOHN BARNARD SWETT, a son of Marblehead, who brought into the hospital service of the army the knowledge he had obtained in the schools of France and England; by NATHANIEL FREEMAN, a native of Cape Cod, a leader there in the early events of the Revolution, a member of the Massachusetts house of representatives in 1775, a companion of Samuel Osgood on his excursion to West Point in 1779 to persuade the officers and men of the Massachusetts line to continue in the service, a brigadier-general of the militia in 1781, a useful member of the Massachusetts Medical Society; by WILLIAM ASPINWALL, who entered the army at the breaking out of the war as surgeon under the advice of his friend General Warren, fought at Lexington, and led a long life as a skillful and efficient physician; by TIMOTHY CHILDS, who while a young physician in Pittsfield, in 1774, organized a company of minute men, marched in 1775 to Boston on receiving news of the battle of Lexington, attended the army to New York, and remained in the service until 1777, when he returned to his practice in Pittsfield; by JOHN FLAGG, of Lynn, an active and useful member of the committee of safety, and a lieutenant-colonel under Timothy Pickering; by SAMUEL HOLTEN, of Danvers, who in 1775 relinquished his profession and entered upon a useful and influential public career as member of the provincial congress, medical examiner for the army, delegate to the American confederate congress, member of the Massachusetts convention to ratify the constitution, member of congress, and judge of probate for Essex County; by THOMAS KITTREDGE, of Andover, who was appointed surgeon in the army while at Cambridge, and witnessed the battle of Bunker Hill, and of whom Dr. John Warren said, "He had more natural skill as a surgeon than any other man in the country;" by JOHN MANNING, of Ipswich, who after the battle of Bunker Hill volunteered his services to dress the wounds of the soldiers, was at Cambridge with the American troops, and served as surgeon in many campaigns; and by OLIVER PRESCOTT, of Groton, a highly educated and successful practitioner, a devoted friend of the cause of freedom, a brigadier-general for the county of Middlesex, a member of the board of war, member of the executive council, major-general of the militia throughout the State, and judge of probate for Middlesex, a man of great powers, both of mind and body. And this constitutes the medical roll of honor for this commonwealth.

Of those who entertained the opinions and accepted the lot of the opponents of the patriot cause in the days of the Revolution, or who were neutral in that crisis, history reserves now a considerate chapter. They were men of culture, devoted mainly to their profession, removed by birth and association from the stirring scenes about them, believing in the possibility of peaceful adjustment, and concurring with Warren, that separation from the mother country would be disastrous and perhaps ruinous. The foremost of these physicians were **Isaac Rand**, of Boston, a graduate of Harvard, a student with Dr. Lloyd, a classical scholar, and learned and skillful physician; **Samuel Danforth**, a student of Dr. Rand's, a polished, scholarly, dignified gentleman, who preserved his reputation through the war of which he disapproved; **Sylvester Gardiner**, whose house before the war was the resort of the literary and scientific on both sides of the Atlantic, whose associates were among the persons of rank and nobility at the time, and whose home after the war was retired and narrow, and

John Jeffries, the most distinguished and active of those who did not agree with the popular views of that day. Dr. Jeffries, a native of Boston, a student of Dr. Lloyd's, educated in the medical schools of Europe, was soon after his settlement in Boston appointed assistant-surgeon of the Captain, ship of the line, by Admiral Montague, and was professionally employed by the commander-in-chief of the British forces at the breaking out of the war. On the evacuation of Boston he accompanied the British troops to Halifax, and gained high standing in the British army. He afterwards joined the grand army at Charleston, South Carolina, under Sir Henry Clinton, and was thence sent into service in New York. He became highly respected in England, and received large offers of place and position, which he declined, in hopes of one day being able to return to his native land and town. To this spot he did return in 1790, "and he speedily acquired the esteem and professional patronage of a large proportion of the most respectable population of Boston and the vicinity." He was eminent in his profession, and was especially beloved by all who knew him. He was not fond of public life or public service of any kind. And while he followed his social associations in the great conflict which he witnessed, it will always be remembered of him that he had at all times a warm place in his heart for his countrymen, and that he cherished through all vicissitudes the memory of his early friends. Letters, written after the war closed, by a maimed and suffering American soldier, who had experienced his kindness while a prisoner at Halifax, bear testimony in most touching terms, to the tender kindness manifested by Dr. Jeffries to all his countrymen who came into his hands as hospital surgeon, during the contest. Like his distinguished teacher, James Lloyd, he drew from England and her great schools the foundation of his professional attainments, and like him, also, his mind turned to that spot as the home of most valuable social and civil institutions. The land of Hunter and Smellie and Warner had a peculiar charm for those young men who had been brought under the influence of these great lights. And so they were respected in their wanderings, and were kindly received on their return.

From the history of the Medical Profession in Massachusetts during the Revolutionary War, we may learn the lesson taught in every crisis — that self-sacrifice and valor win for man his immortality, and that charity and reconciliation should mark the close of every Christian conflict.

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THE DISEASES OF AMERICA.

BY DR. JOHANN DAVID SCHOEPFF,

Surgeon of the Anspach-Bayreuth Troops in America.

TRANSLATED AND EDITED BY JAMES R. CHADWICK, M. D., OF BOSTON.[1]

Of all the princes reigning over the smaller German states during the seventeenth century, there were none whose sway was so arbitrary, and whose tyranny was so freely exercised, as those of the Margraves of Anspach and Bayreuth. The cruelty and lawlessness of these petty rulers cannot be better illustrated than by citing two incidents that occurred but a few years before the American Revolution. As Charles Frederick William, Margrave of Anspach (1723–1757), was one day walking with his mistress, she expressed the wish to see a chimney-sweep, who had just emerged upon the roof of the Bruckberg Castle, fall to the ground; whereupon his Highness, to gratify her, shot the man dead. To the widow, who came to crave his mercy, he made a gift of five florins. In Bayreuth the same state of affairs existed. The Margrave Frederick Christian (1763–1769) had contracted the disagreeable habit of venting his spleen by belaboring his subjects with his cane in broad daylight. High and low, noble and civilian, cabinet minister and officers, none were safe from this unmistakable proof of the sovereign's ill-temper. As this habit became daily harder to bear, a meeting was called to consider what action the nobility, and especially the military, should take with reference to this inclination of the margrave. "The high nobility and the very worthy corps of officers" came to the valiant determination that they would ask the court preacher to intercede with his serene Highness, and beg him to have a greater regard for a soldier's pride. At the same time it was moreover decided that a thrashing at the hands of their ruler should not be deemed derogatory to the honor of a subject, and that all the money received from him in condonation of such acts should be deposited in a common treasury.

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[1] The pamphlet in which were printed the following letters, addressed to Professor Delius of Erlangen, was unearthed while I was ransacking an antiquarian bookstore in Munich, Bavaria. The letters have been considered of medico-historical interest, and as I cannot learn that they are to be found in any library on this side of the Atlantic, I venture to lay them before the profession. The pamphlet bears the date 1781, and was printed in Erlangen. The notes to the following translation are all mine. — J. R. C.

From these two princes Charles Alexander inherited the principalities of Anspach and Bayreuth, and, what was worse, the disposition, habits, and traditions of his ancestors. His territory embraced one hundred and forty square miles, and was peopled with four hundred thousand subjects. The American war found him so involved in debt, and the country so impoverished by taxation, that he hailed with joy the prospect of replenishing his empty coffers by the sale of troops to England. The advances of his agent in London, however, were for a long time repelled, owing to the bad reputation that his soldiers had earned in previous campaigns, and it was not until February 1, 1777, that a contract was signed, whereby England obtained the services of two regiments of infantry, one company of grenadiers, and a division of Jägers, in all, twelve hundred and eighty-five men.[1] The terms were thirty crowns a head in cash, and a yearly subsidy of forty-five thousand crowns. The only stipulation in the treaty relating to medical matters is Article XII., the same as that made with the Hessians, which reads as follows: "The sick of the Hessian troops shall remain under the care of the physicians, surgeons, and other persons appointed for that purpose under the orders of the general commanding the corps of that nation, and everything shall be allowed them that his majesty allows his own troops."[2]

The regiments started for Ochsenfurt on March 5, 1777, but had not proceeded many miles before they broke into open revolt. In a letter of Benjamin Franklin, written from Paris to a Mr. Winthrop in Boston, I find the following: "Les recrues du Prince d'Anspach se sont revoltées, elles ont refusé de marcher. Ce prince a donc été forcé de les desarmer et enchainer, et de les conduire lui-même de la sorte à la tête de ses gardes jusqu'au bord de la mer."[3] The troops sailed from Dortrecht in seventeen transports on March 30th, reached Ports-mouth on April 1st, sailed thence five days later, and finally entered New York harbor on June 3d. Their first camp was on Staten Island, where they passed part of the summer. Some companies were present at the battles of Brandywine, Monmouth Court House, and at the capture of Forts Clinton and Montgomery. From July, 1777, to July, 1778, they were in camp on a small island opposite Newport, whence they retreated on July 27th to Newport, owing to the arrival of the French fleet, and encamped on Windmill Hill. In October they received recruits from Germany, and on January 11, 1779, transports arrived bringing, among others, "the celebrated Dr. Schöpff from Anspach."[1]

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[1] Der Soldatenhandel deutscher Fürsten nach Amerika. Friedrich Kapp. Berlin. 1874.

[2] New York Packet, June 6, 1776.

[3] Résumé de l'Histoire des Revolutions de l'Amérique Septentrionale. Par P. J. S. Dupuy. Paris. 1826. 2 vols.

The Anspach-Bayreuth troops were kept in and about New York until July, 1781, when they were sent to reinforce Cornwallis's army at Yorktown; "here dysentery and typhoid fever were rife, owing to the heat and to the scarcity and poor quality of the food." During the siege of Yorktown they occupied the left wing of the army, and lost fifty killed or wounded, and fifty by desertion. After the surrender of Cornwallis in October, 1781, they were confined in the prison at Winchester until the spring of 1783, when peace was proclaimed. Of the sixteen hundred and forty-four Anspach-Bayreuth troops who served in America, four hundred and sixty-one were lost.

Dr. Schöpff did not return to Europe with his fellow-countrymen, but devoted two years to travel, as a result of which he published at Erlangen, in 1788, "Travels through some of the Middle and Southern United States of North America to East-Florida and the Bahama Islands, undertaken in the years 1783 and 1784, by Johann David Schöpff d. U. W. D. Hochfürstl. Brandenb. Onolzb. und Culmb. Hof und Militär-Medicus, Land-physikus des Mediz. Colleg. zu Beureuth, Rath, und der Gesellschaft naturforschender Freunde zu Berlin Mitglied."

I.

NEW YORK, *December*, 1780.

It is natural that the inhabitants of so changeable a clime as this should be affected, in one way or another, by the peculiar climatic influences to which they are exposed. More or less weakness, effeminacy, incapacity, and kindred qualities characterize the nations that live either in a very hot or a very cold climate. Only mild and uniformly temperate regions form a people that become distinguished for ability, industry, and the strength requisite for great undertakings. I am too little acquainted with the native Americans to speak from my own knowledge; but Robertson is led by his observations to say, "The Americans are more remarkable for their quickness than strength; they resemble beasts of prey rather than beasts of burden. They not only are disinclined to hard labor, but also are incapable of it; and if they are by force aroused from their inherent indolence and compelled to work, they sink under enterprises which the inhabitants of the Old World would have completed with the greatest ease. The beardless face and the smooth skin of the American appears to indicate a want of strength which is caused by some vice in his frame. He lacks one of the external signs of manhood and strength."[1] Besides these natural causes, political and moral ones combine to bring about the result. The individuals of European descent here appear, as a rule, to have lost the muscular strength, the sturdy build, and the manly form of the nations from whom they have sprung. Lank, feeble, weak, without the bloom and hardy aspect of youthful health, the American is more like a rapid-growing reed than an oak, which attains to a durable strength by a slow growth. A single glance is all that is required to distinguish an American from a European, and if the latter has once withstood the hardships of the first change of climate, he may forever defy competition with the native American. I do not know how many old persons there may be in America, but the majority of those whom I have seen, that had attained the age of seventy or eighty years, have been either Europeans or of European parentage, from which source they had inherited their hardy constitutions. The American troops, although they fight in a climate to which from youth up they have been accustomed, invariably suffer from the inclemencies of the weather, the insalubrity of the swamps, and the fatigues of the campaigns, quite as much as, and even more than, the royal European troops. When our soldiers have been sickly, theirs have been doubly so, and disease has frequently been rife among them when our men have been enjoying the best of health. Even in and about New York, diseases often prevail among the inhabitants when our army hospitals are almost entirely empty. The cause of this so universally noticeable weakness seems to lie in the frequent changes of weather and the great extremes of heat and cold. Heat greatly relaxes and enfeebles their sinews, whereas cold renders them constantly hard and stiff, until finally they become powerless, like a spring that has often been bent to and fro. This is especially true of the so-called middle colonies. Virginia, although one of the most southern provinces, produces, nevertheless, a healthier and stouter race of men, as well as of horses, than the other colonies. The heat, to which this colony is exposed by its southern position, is considerably moderated by constant sea-breezes, numerous streams, and the propinquity of the mountains. Owing to its meridional situation, its winter also is milder and more uniform than in the north, so that the weather is more enjoyable throughout the whole year than in any of the other provinces. Greater strength and vivacity are consequently imparted to its entire animate creation.

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[1] Die Deutschen Hülfstruppen im nordamerikanischen Befreiungskriege 1776 bis 1783. Max. von Elking. Hannover, 1863.

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[1] **By a misapplication which can hardly be regarded as other than willful, the writer makes the above quotation apply to the native American (whites), whereas a reference to the original shows that Robertson was describing the Indian aborigines.**

Franklin, with an admirable and cunning craft that astonished all Europe, calculated the extremely rapid increase of population in the provinces; but, taking all the circumstances into account, it is doubtful whether even the present number of inhabitants would be maintained without the steady immigration from Europe. It is true that the marriages are fruitful; of this we have remarkable instances among our troops.[1] I have been assured that a disproportionately larger number of children die here than in Europe, although, by the almost universal practice of inoculation of small-pox, countless multitudes are saved from a death to which the unconquerable prejudice of our fatherland still continues to offer sacrifice. As, however, no records of births and deaths are published, these statements are not trustworthy. Whether the climate exerts an influence upon the character of Americans, and if so to what extent, I am not prepared to state. On the whole, the people seem to have no decided general characteristics; such as they have are purely negative ones, determined by the country and nation from which they trace their descent. A promiscuous crowd of almost all nations of Europe, of Jews and negroes, of all creeds and sects, of people who have settled here for such diverse reasons, and often in order to escape legal penalties, here congregates and ingrafts upon the common country of their adoption the sentiments, manners, and habits of life which each individual has brought with him. Such a mixture will require a long fermentation before it will contain the spirit, the feelings, and the imprint of a united people. The present war does not yet justify the Americans in comparing themselves to those nations who have made their mark in history by their noble courage and exalted love of freedom. They cannot be compared with these either for their motives, their opinions, or their conduct. It seems as though all nationalities which have transplanted themselves hither had carefully discarded the one good side of their character in order to promote the equality of stations so dear to every American, because, as they probably knew, the black color admits of but few shades.[2]

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[1] This is especially true of the Europeans here. The American women are not very prolific. They are amazed at the fourteenth pregnancy of the queen, and when I tell them that I know mothers with eighteen and twenty-four living children, those who accept the story at all cannot help betraying envy in the expression of their countenances. (Schöpff.)

[2] That these disparaging remarks were reciprocated by our countrymen may be seen by citations from the daily journals of that period. The Boston Gazette of November 2, 1778, has a letter from Rhode Island dated October 18th, which states that on "the day of the battle, the Anspach troops robbed every house in their way, and plundered families of beds and every rag of clothing." From Rivington's Gazette of May 17, 1783, I take the following: "The Hessians are a kind, peaceable people, inveterately fond of smoking and pea-coffee; their offenses are chiefly of the sly kind, such as stealing at night." Of their heartlessness we have many proofs; one quotation is peculiarly appropriate in this connection. Oct.

Allow me, before closing, to append a few brief remarks about the diseases common to these regions, irrespective of those arising from the manners and exigencies of the life and occupations. There is quite a number of diseases dependent upon other more universal causes. No summer passes without many of the inhabitants being suddenly stricken down during the hottest days by what appears to be apoplexy; this is especially common after violent exercise, but occurs not infrequently when the individual has remained quietly in his house. Instances are plenty of laboring men, who have been exposed to the heat of the day, falling dead after an imprudent cold drink; such a sad event is not of rare occurrence in the streets. The battle near Monmouth,[1] on June 28, 1778, was remarkable from one circumstance which has not its parallel in the history of the New World; without receiving a wound, fifty-nine men fell on our side solely from the extraordinary heat and fatigue of the day; and many on the side of the rebels succumbed to the same causes, in spite of their men being more accustomed to the climate. A few days later, a battalion of Hessian grenadiers marched on a hot afternoon only a few miles out of the city; when midway on the route, a young officer and a man from the ranks fell dead. Soon after our arrival in America, Seitz's company of grenadiers lost two men during a forced march in Jersey.[2] A hundred similar instances might be adduced. I have never had an opportunity of witnessing a death from this cause; but, according to the accounts, some fall suddenly dead, whereas others pass first into a kind of frenzy; some become black and blue in the face, and the blood gushes from the mouth and nostrils, whereas others are found lying motionless beside the pool or spring where they had thought to slake their thirst. These instances sufficiently indicate the cause of the sudden death. It is remarkable that cases of this description are not of more common occurrence, considering the extreme heat to which the troops, and especially the German, have at times been exposed while on the march and in battle; enveloped

24, 1777. This hospital (at Albany ?) is now crowded with officers and soldiers from the field of battle; those belonging to the British and Hessian troops are accommodated in the same hospital with our own men, and receive equal care and attention. The foreigners are under the care and management of their own surgeons. I have been present at some of their capital operations, and remarked that the English surgeons performed with skill and dexterity; but the Germans, with few exceptions, do no credit to their profession; some of them are the most uncouth and clumsy operators I ever witnessed, and appear to be destitute of all sympathy and tenderness towards the suffering patient." (A Military Journal during the American Revolutionary War. By James Thacher, M. D. Boston, 1827. Page 112.)

[1] "This retreat of the British army, of which so little has been said in history, was much more remarkable than that of Moreau, which is regarded in our time as a sort of miracle, and really was so." (Betractungen über die neuere Kriegskunst. Vom General Baron von Ochs. Cassel. 1817.)

[2] This company belonged to the Anspach regiment, commanded by Colonel Von Eyk. They landed upon Staten Island on June 3, 1777, and went into camp at Colls-Ferry. On June 11th, which was a very hot day, they made this march to Amboy, at the mouth of the Raritan, and remained there till spring.

as our men are in heavy woolen garments and tight leggings, and carrying the entire weight of a gun, sixty cartridges, knapsack, and rations, they cannot but suffer doubly from all the discomforts of such days. The English, who are more used to fighting in warm countries, provide their troops in summer with a lighter clothing, adapted to the climate, and leave them the free use of their limbs which is so necessary to soldiers on the march; they do not seem to believe that the same garments that keep a man warm in Nova Zembla must also keep him cool in Jamaica. When the heat is uniform, and the troops are resting quietly in healthy camps, they endure it quite easily. During the warmest days of last August, the army hospitals had the smallest number of patients and of deaths in the whole year, but the moment the weather became changeable various diseases began to prevail. During moist and unstable summer weather, it is chiefly dysentery and kindred diseases that abound. Attacks of cholera, with incessant bilious vomiting and purging, have been common among our soldiers during the hottest seasons, but they are generally arrested in one or two days by the administration of emetics or cathartics — and quite often without them — as soon as the unusual and perhaps injurious quantity of bile, to the formation of which warm seasons and countries are so conducive, has been ejected. These attacks have seldom been attended by any marked degree of fever; during their prevalence we have never had a single obstinate case of dysentery.[1]

A peculiar kind of eruption, if it may be so called, known by the name of the "prickling heat," is almost universal here in summer. The skin is covered with a quantity of large or small red spots that are occasionally attended by a disagreeable itching sensation, from which symptom the name is derived. The spots are not raised, but come and go with the increase or decrease of the heat. People who keep in-doors do not have them so often, or to so marked a degree, as those who are exposed to the sun. On my own person I have observed them during the midday hours, most commonly after having been out; my entire skin would then be red. When the weather begins to moderate this eruption disappears, and the skin desquamates almost imperceptibly. The common people, who are universally disposed to regard every eruption as healthy, look upon "prickling heat" in the same way, and therefore consider its sudden subsidence to be injurious; it is not so, however, except in so far as this action is attended by the suppression of evaporation. The whole appearance is nothing more than a greater determination of red blood to the vessels of the skin, when they are relaxed by the heat from without. The rays of the sun are often powerful enough to raise vesicles on the tender parts of the body when exposed.[1]

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[1] "Not only was the march (in Canada) very fatiguing, but, as the heat of the sun increased, many of the German troops under Riedesel's command fell sick, so that by the middle of July (they landed in June) upwards of three hundred of the Brunswickers were lying ill either in the military hospital or in private houses. Most of them suffered from a violent diarrhœa, accompanied by fever, brought on by the sudden changes of temperature of the climate — warm days and cold nights — to which they were wholly unaccustomed." (Letters and Journal of Mrs General Riedesel. Berlin. 1800. Translated by W. L. Stone. Albany. 1867.)

The surface of our body is so sensitive to the slightest influences, when the heat is very great, that nothing is commoner than to meet people with catarrhs and colds at such times. The least fall of the thermometer, after a long spell of hot weather, is also extremely trying. At midday on August 19th we had a temperature of 86° ; in the evening it was 79°, and the next morning 64°. It was strange to me not to find, on waking, the least trace of perspiration ; my whole skin was as dry as parchment, and felt over my whole body just as leather garments do which have been wet and rapidly dried ; the "prickling heat" had vanished, and many of the vesicles which the sun had raised on the exposed parts of my body had dried and already begun to desquamate. I felt, however, brighter and more lively than before. We are accustomed either to wake in a profuse perspiration or to fall into this state on the slightest exertion. On the morning referred to above, I noticed that my pulse was stronger and fuller than on the preceding day, and that the desire to micturate roused me from sleep, which had not happened for a long time before. About midday, when the heat again increased, I experienced an unpleasant prickling over my whole body. My attention was particularly drawn to this remarkable change because, two days later, the temperature rose higher than ever, and similar fluctuations afterwards brought many patients into the hospital.

Among the autumnal affections, remittent and intermittent fever take the precedence ; they are often accompanied by bilious attacks, and assume the perfect type of the West Indian fevers. The autumns of 1779 and 1780 were more favorable to their development than the preceding one. There was an unusual number of fever patients among the soldiers as well as among civilians. The greater sickliness of the past two years, and especially since the army has been here, is quite striking ; according to the unanimous statements of the inhabitants and physicians of this place, these years are quite exceptional when compared with the years of peace, and no explanation can be given for this difference.[2] Perhaps, however, an opinion about this question might be haz-

[1] "By weaning my daughter the beginning of May, I brought upon myself an eruption, to which most people in this warm climate are subject. Little pimples came out over the whole limb, which itches so that one has no peace whatever. They come with the hot and disappear with the cold weather ; otherwise the person is perfectly well." (Riedesel, page 180.)

[2] June, 1775. "Autumnal fevers prevailed much in the army (at Cambridge), and dysentery was very severe and very fatal." (Thacher, l. c.)

"The situation (New York) is said to be perfectly healthy, but fresh water is so very scarce that the purchase of this essential article is attended with a considerable expense."

arded in view of the scientific experiments on the importance of the vegetable kingdom in purifying the air that have quite recently been published by Dr. Ingenhouss. There is a belief, founded upon universal experience, that the varieties of fever of which we are speaking are chiefly generated by emanations from foul, marshy, and stagnant waters; at all events, they abound chiefly in districts of this description. The level country of America is everywhere covered with vast swamps and morasses; myriads of plants, shrubs, and trees here find a most sulphurous nutriment in the vegetable earth that has been accumulating undisturbed for so many centuries; such places are consequently almost impenetrable; the eye cannot even see the ground, into which the foot sinks at every step. The first settlers were everywhere obliged to clear the land of wood to get a field for dwellings and tillage, but throughout America the newly-settled regions were generally found to be extremely insalubrious until, after the lapse of years, the ground was dried by exposure to the sun and by other means, so that the neighboring dwellings were rendered more healthy.

This change is of common occurrence when new land is cleared and rendered arable in the interior of the country. In the regions along the coast that are termed settled and inhabited there are, nevertheless, considerable stretches of such swampy forest and wilderness, which, to all appearances, are still in their pristine condition; the emanations from these are, however, in part retained and purified by the thick covering of shrubs, as shown by Ingenhouss's experiments. The army required an immense amount of wood during a four years' stay in one small district of this description. Instead of wood being felled in spots here and there, and a great stretch of land being drawn upon to meet the demands of the chief city — the requirements of which were at that time smaller than now — as had been the custom of those who owned the fields and woodlands, great forests have of late been successively exterminated and the formerly overgrown swamps and morasses been laid bare.

New York, August 9, 1776. "The air of the whole city seems infected. In almost every street there is a horrid smell." (Solomon Drowne, M. D., in "New York during the Revolution.")

In addition to the causes of insalubrity suggested by the last two quotations, scarcity of food was also experienced. With respect to one article of diet this was effected in a strange way, if we are to credit the facts stated in the two following paragraphs, taken from independent chroniclers.

"Lobsters of a prodigious size were, till of late, caught in vast numbers (in North and East rivers), but it is a fact, surprising as it may appear, that since the late incessant cannonading, they have entirely forsaken the coast, not one having been taken or seen since the commencement of the hostilities." (Letters from America during 1769–1777, inclusive. London, 1792.)

"In Nova Scotia it was remarked upon as a curious occurrence that while before the Revolution lobsters or large crawfish had never been seen in this vicinity, yet no sooner had that struggle commenced than numbers of them left the continent of North America and came to New-Scotland. This gave rise to a standing joke among the people of this place, that the lobsters were good royalists and accordingly wore the English (red) uniforms." (Riedesel.)

Here is a prolific source of diseases, which, having nothing to limit them or stay their ravages, spread to all the neighboring regions, and may generate a host of previously but little known affections. The subsequent experiments of the author quoted show, in addition, the reason why this impurity of the air is more marked in autumn and in autumnal weather than in summer or in summer weather, since in the latter the days are longer and the action of the sun more powerful, the atmosphere clearer, and the vegetable kingdom in full activity.

(*To be continued.*)

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THE PAST AND THE FUTURE.

At this time, when the minds of all are filled with the deeds of a century ago, when everything relating to those days, be it musket or manuscript, sword or seal, is brought to light by the great-grandchildren of those who made it famous, it is but natural that physicians should search the record of their order to see to how much remembrance the profession is entitled. Here, indeed, no search is needed, for the very name of Bunker Hill suggests that of the rising young surgeon who fell there. Few are now living who can form a very distinct idea of the state of society in the colonial times; but it is evident that then, as now, the medical profession was held in the high esteem which it enjoys only in America. Little research was needed to show that during the Revolution physicians were active in the field and sagacious in council. Thus it occurred to us that it would be well for once to turn from reports on progress and proceedings of societies and to endeavor to throw light on labors and sacrifices which, though already indistinct in the light of tradition, were terribly real one hundred years ago. We present our thanks to the distinguished contributors and others who have assisted us in the work, and must apologize that unavoidable accidents have prevented us from giving our readers two of the articles we had promised.

We make this a holiday on which, instead of toiling on our road, we pause to look back. It may be that even a hasty glance at the past may make us see more clearly the duties and the dangers of the future. We see that during the past hundred years the profession has held its own, keeping pace with the general progress. Never in times of emergency has it been found wanting. The physicians who joined hands so heartily a few weeks ago at Louisville had espoused in our late war, with all their souls, the cause each deemed just. In those dark days no body of men on either side was more energetic in lending aid in any capacity. The inventive genius, dexterity, judgment, courage, and coolness of our physicians and surgeons are well known.

We make these remarks in no spirit of self-glorification, but to show how great is our responsibility. We live at an important moment, for it depends upon us whether a hundred years hence the standing of the profession shall be as high as it is now; whether by improving our schools we shall not make the journey to America as desirable for foreign graduates as that to France, Austria, or Germany is now considered. Perpetual vigilance is necessary to retain what we have received, mature judgment to enable us to give it increased to our successors; but except by steady, patient labor in the times of our prosperity we shall not transmit to our descendants the full crop that was sown by our ancestors in times of trial.

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DR. JOSEPH WARREN'S DAY-BOOK.

THE day-book of General Warren, giving an account of his daily visits prescriptions, and charges, was discovered some fifteen years since by the late Dr. J. Mason Warren in his father's library. The record extends from May 3, 1774, to May 8, 1775, after which date no further entry was made. The remainder of the book is filled with the daily accounts of the late Dr. John Warren, brother to the general. These begin in 1779, and continue to the end of the book. It was owing to this circumstance, doubtless, that these interesting records were preserved and were subsequently discovered in the library of Dr. John Warren's son. The records extend, it will be perceived, over a very interesting period of the country's history, and although the memoranda contained in them are of a purely professional character, we see even here traces of the events in which the writer participated. On the anniversary of the "Boston Massacre," for instance, we find the date, written out as usual in full — Boston March 5th 1775 Sunday — surrounded by deep black ink marks. It was on this anniversary that he delivered one of his orations at the Old South Church. We find, also, July 14, 1774, mentioned as fast-day.

Dr. Warren, although but thirty-four years of age, had been in practice quite a number of years, and had evidently a flourishing practice. We find among the families visited by him the names of Hancock, "Speaker Cushing," John Adams, Josiah Quincy, and others; but his practice was not exclusively confined to one class in the community. The following entries, which happen to appear as neighbors on his lists, are evidently not so socially, if we may judge from the delicate distinction implied in the manner of making the entry. Mrs. Baker appears as "Baker sugar bakers wife," while Mrs. Hills as "Mr. Tho: Hills Lady." In August 17, 1774, we find the following quaint entry: "In damnation alley — he that married Bryant. Pil Coch: Calom: No ij 1s. 4d." We are unable to learn the whereabouts of this locality; the term is a nickname probably given to some neighborhood of ill-repute. Temple Street was a resort for negroes, for we find the following entry and a number of others indicating this: "Cato Negro Temple St. V. S. & Emet. 2s. 8d." The names Separate Lane and S. End also appear among the addresses of patients. Fees, it will be perceived, were small in those days, the average charge being three shillings, which always included medicines. One of the largest fees entered in the book is for a midwifery case, £1 8s. For amputating the thigh of Mr. Hale's boy, £4 were charged. The following prescriptions serve to show the practice of that time; we give them precisely as written. "℞. Rh. ʒi Senne ʒiss

Manne ℥i Sal Mirab. ʒi Anne seed a Thimble full Aquae com ℥ij — coq. ad ℥iv." A frequent dose for ladies was "Sal vol & Elix Camph aa ʒj." "Dowdle A sailor at Gardners" had "Decoct guaic lb ij and anti Venerial Pills No. 24."

During the busier portion of the year we find from twelve to twenty entries daily; but as we approach the exciting times which preceded the first outbreak of the Revolution, the writer was evidently allowing his patriotism to outweigh his zeal for his profession. On April 19, 1775, there is but one entry. He left town early that day on horseback, and joined our troops at Lexington. It has been supposed that he did not return to town after this engagement, but we find that the next day he made several visits, two of which were in Temple Street. After this date, however, but few entries occur, and the record ends on May 8th, when Mrs. Mellville received sixteen shillings' worth of pills, which were evidently intended to last her for some time. The handwriting is clear and carefully written, much in the style of that which appears on the first page of this number. The book is a long and narrow one, and quaintly bound in yellow vellum.

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GENERAL WASHINGTON AND HIS DENTIST.

We are indebted to Dr. Jacob L. Williams for the following facts in regard to the letter of Washington which we give below, copied from the original, which has never before been printed. It is fair to assume that the lapse of nearly a century has worn out its confidential character. The interesting bearing which it has upon the likenesses of Washington is our excuse for reproducing it.

The letter, Dr. Williams states, was written to John Greenwood, of New York, who had a younger brother, William Pitt Greenwood, in Boston, both skillful in the practice of dentistry as then understood.

The "bar" referred to took the place of what is now the plate, and was made of ivory carved to an approximate adaptation to the gum, and the teeth were fastened by rivets to the bar.

At that time neither the principle of complete support by atmospheric pressure nor by springs was well understood, and the support of an artificial set in the mouth depended somewhat on training of the facial muscles.

The bulk or thickness of the bar, together with the action of the muscles in keeping it in place, was apt to give a puffed or "pouting" expression of the face, or some part of it. This in the case under consideration was principally evident about the upper lip, as seen in Stuart's portrait of Washington, painted about 1796, while the subject had the set of teeth, the bar of which he had modified so much with his own hands, to obtain comfort, and if possible to correct the objectionable expression mentioned

The suggestion in regard to the "falling back" of the upper teeth, though probably not anatomically correct, even at his age, was evidently made with reference to the same point, as an additional aid in diminishing the pouting expression of the upper lip, and in producing the original symmetry of the face which we find in Houdon's bust, made in 1785, and which is also seen in Peale's portraits.

It is gratifying to know that we have in Ball's equestrian statue of Washington, in the Public Garden, a good representation of his natural features, mainly from Houdon and Peale, and which, being free from the objections mentioned in the above letter, would seem thereby to have the approval, in this respect at least, of the great original.

PHILADELPHIA, 12*th Dec*r, 1798.

SIR, — Your letter of the 8th came safe — and as I am hurrying in order to leave this city to-morrow, I must be short.

The principal thing you will have to attend to, in the alteration you are about to make, is to let the upper bar fall back from the lower one thus Whether the teeth are quite straight, or inclining a little in, thus, or a little rounding outwards, thus, is immaterial, for I find it is the bars alone, both above and below, that gives the lips the pouting and swelling appearance — of consequence, if this can be remedied all will be well.

I send you the old bars, which you returned to me with the new set, because you have desired. But they may be destroyed, or anything else done with them you please, for you will find that I have been obliged to file them away so much above, to remedy the evil I have been complaining of, as to render them useless, perhaps, to receive new teeth. But of this you are better able to judge than I am. If you can fix the teeth (not on the new bars which you have) on the old bars which you will receive with this letter, I should prefer it, because the latter are easy in the mouth — and you will perceive moreover that when the edges of the upper and lower teeth are put together that the upper falls back into the mouth, which they ought to do, or it will have the effect of forcing the lip out just under the nose.

I shall only repeat again that I feel much obliged by your extreme willingness and readiness to accommodate me, and that I am, sir —

Your obed^t Servant G° WASHINGTON.

M^r Jn° GREENWOOD.

MEDICAL NOTES.

— The accompanying extract from the *Massachusetts Spy* of July 19, 1775, is quoted as showing some of the difficulties the British had to contend with during their imprisonment in Boston, and is of interest in connection with Dr. Ellis's letter. The forcible language used gives us a glimpse of the bitter feeling which then existed.

" We hear the camp distemper rages in the regular army in Boston, as also among the distressed inhabitants who are confined in that town by order of Tom Gage, in open violation of his most solemn engagement. It is to be hoped he will meet the fate of Pharaoh of old, whose example he so exactly follows.

" We hear General Gage has requested of our army to send necessaries for the distressed poor, confined in Boston.

" [A man that will LIE, will also ROB — the poor.] "

— We have received an interesting statement from the venerable Josiah Bartlett, M. D., of Concord, formerly president of the Massachusetts Medical Society, in regard to the part played by his father in the drama of the 19th of April, 1775. In a letter dated May 29, 1875, he says: " On the 19th of April, 1775, my father rode to Menotomy, now Arlington, toward evening, with his patron and friend with whom he studied his profession, Dr. Isaac Foster, afterwards surgeon-general of the revolutionary army, to amputate the leg of a Danvers soldier who was shot through the knee. Many years after, my father pointed out the house where it was done, and which still remains. He joined the army as surgeon's mate on the 20th of April, 1775. After the war he settled in Charlestown, in 1783, and died in 1820. In that year I came to Concord, and have lived here fifty-five years. In April, 1875, I might have assisted in the same operation in the same house if opportunity had offered, a long period of active duty in our profession of father and son, *a whole century.*"

— The following document, copied from the original in the possession of the Massachusetts Historical Society, shows us a glimpse of Dr. Isaac Foster a little over a year from the above date. It has never before been printed.

Coll. Prescott's Compliments To Doct. Morgan & Desires Him To Examine John Barber and if you Think It For the Benefit of the Army after such Examination that he Should Be Discharged from The Army That you Wold Seartify the Same To His Excelency The General That he Thay said John Barber might obtain a Dischare from the Army.

WM. PRESCOTT, Colo.

GOUNOURS ISLAND, *June* 14, 1776.

[Endorsement.]

GENERAL HOSPITAL *June* 14. 1776

SIR

in pursuance of your request, I have in the abcence of Doctor Morgan examined the case of the within mentioned John Barber he is in my opinion from sickness unfit for the service. I am your most humble servant

ISAAC FOSTER
Surgeon in the hospital

— We have received a copy of a recipe written by Dr. Benjamin Church, Jr., which shows that even a hundred years ago simple diet was sometimes prescribed without large doses of calomel and jalap. The following notice of the author occurs in Austin's Life of Gerry, volume i., page 32: "If there is any exception to the invariable integrity of the American civil officers, it is in the case of the writer of this letter. Dr. Church was an eminent physician of Boston, a member of the general court from the capital, and one of the committee of safety. He enjoyed the confidence and esteem of the patriots with whom he was associated until October, 1775, when he was charged and convicted before a military tribunal of holding illicit intercourse with the enemy, and in consequence of such conviction was expelled from the provincial congress." — "Light mutton or chicken broth or Gruel or Ale (?) must be your Diet to-morrow, in general weak Chocolate with a proper proportion of Milk will serve you; milk & water boiled together is a good Draught for you, the Hartshorn Decoction is good with brown Biskett after the operation of the Physick, rice in every form suitable, Wine & Water, ripe Fruits, chamomile Tea may be used with discretion — proceed in this way my dear Sir, make haste to recover, so prays Yrs affectionately,

BENJA CHURCH JUN.

AMERICAN HOSPITAL, CAMBRIDGE, *Sept. 8th*, 1775.
ELBRIDGE GERRY, ESQ."

A TORY SURGEON'S EXPERIENCES JUNE 17, 1775.

MESSRS. EDITORS, — In compliance with your request that I should state what I know of the connection of my father and General Joseph Warren, M. D., with the battle of Bunker Hill, I have penned the following reminiscences derived from statements of my father, who, like Drs. Warren, Rand, and others of that time, had been a pupil of Dr. James Lloyd.

Respectfully yours, JOHN JEFFRIES.

15 CHESTNUT STREET, BOSTON, *May* 22, 1875.

Dr. Warren had sent to my father a message to meet him secretly at midnight at the end of the wharf of the Charlestown ferry. He accordingly met him shortly before the battle of Bunker Hill. Dr. Warren came over in a small boat, with muffled oars. His object was to induce my father to unite with the Continental army as a surgeon. This he urged upon him, offering him great inducements to accept. The reply was, "I thought, Warren, that you knew me better. I would not take office under anybody. My motto is '*Aut Cæsar aut nullus.*'" Warren then said, "Don't be so quick, Jeffries, *I* have a general's commission in my pocket. We want you to be at the head of the medical service." The offer, however, was declined.

My father was intimately acquainted with Dr. Warren, Mr. Paul Revere, and many other prominent gentlemen of that time, being a member of the same masonic lodge with them (St. Andrew's), which held its meetings at the "Green Dragon."

On the morning of the 17th of June, as my father was reading a small newspaper in the parlor of the house where he resided, being that of his uncle, the Hon. John Jeffries, opposite the King's Chapel, which was a rendezvous for all British officers of high rank in the army or navy, General Howe entered and said, "Dr. John, I am told that the rebels have thrown up some works last night on the hill over the water. I shall send troops over to drive them off. Would you like to go with me to see it?" He subsequently accompanied the general to Copp's Hill, from which there was a full view of the incidents which transpired. General Howe was deeply interested and pleased with the beauty of the scene, the perfect regularity of the boats carrying the troops in their bright uniforms, the landing on the beach, the forming in line, and the march up the hill. As they approached the redoubt without any opposition, Howe exclaimed, "How's this? They have vacated the fort! They have run away!" Just then came the fatal fire which broke the ranks of the British soldiers and drove them back to the beach. "What's that! What's that!" exclaimed General Howe in great excitement. "Ha! ha! they are forming again. Now we shall see!" The second attack being attended with similar results, General Howe determined to go over immediately himself, which he did, taking my father with him. After the capture of the redoubt, General Howe came to my father as he was dressing a wounded officer on the beach, saying, "It is reported that Dr. Warren is killed. Do you know him, Jeffries?" "Yes, sir, as well as I know you." "Come with me, then." After going a short distance, Howe put his arm before him to stop him, and asked, "How shall you know him?" The answer was, "He had one of the upper incisor teeth broken off obliquely in early life, and he has also lost a part of one thumb from a felon." As soon as they had passed through the fort the body was seen, and my father exclaimed, "That is Warren!" He was lying on his face, with the head downward, where the hill was steep. On examination, a wound was found on the back of the head, made by a bullet.

I also learned from my father that he was told by an English officer who was the first to enter the redoubt with a file of soldiers, that when they had crossed the ground and had reached the opposite side, he saw Dr. Warren descending the hill quite near, and called out to him, "Stop, Warren! for God's sake, stop, or you are a dead man!" Warren turned his head and looked at him and then continued his descent. The officer then spoke hastily to his men, saying, "Fire at his heels!" He said he thought that they had intended to do so but failed fatally, owing to the steepness of the hill. I think that officer was Colonel Carlton.

In the *New England Journal of Medicine and Surgery*, the predecessor of your present JOURNAL, for January, 1820, New Series, No. 1, Vol. IV., may be found an extended biography of the medical life of my father, Dr. John Jeffries, who died that year.

THE SICK AND WOUNDED AT BUNKER HILL.

MESSRS. EDITORS, — In answer to your inquiry as to the provisions and arrangements made for treating the sick and wounded on either side after the battle of Bunker Hill, I give you all the incidental information that is within my own knowledge.

Of course, on the American side all such arrangements were necessarily extemporized. Many of the wounded were cared for in private houses, and by their friends in the barracks and tents in the camp. Those who needed more care and treatment were taken as far from the camp as circumstances allowed. The two loyalists' houses at the fork of the road leading to Mount Auburn were immediately arranged for the sick and wounded. That deserted by Thomas Fayerweather (now owned by the heirs of William Wells) was used for the *men* — that of Thomas Oliver (now James A. Lowell's) was used for the officers. The dead were buried in the field which makes the corner, and have never been disturbed, as the field does not appear to have been ever occupied except as a pasture. Drs. Foster, Hurd, and John Warren were the first to render medical and surgical aid, and their services were transient and intermittent till, after much dilatoriness on our part, Washington, after his arrival at the camp, made permanent arrangements.

I have believed that many of those whom General Gage returned as "wounded" ought to have been numbered with the killed, as very many died, being terribly wounded, between the close of the battle and before he made his return. It was the hottest day of that whole summer. A very intelligent and trustworthy man, who was twenty years old at the time of the fight, described the scene vividly to me, as he saw it in the evening, all through the night, and the next day — hearing the screams of sufferers. I have seen an order of General Howe for sending over to Charlestown, the night after the battle, six hundred barrels of quicklime. It had occurred to me that possibly the dead had been thrown into a sloughy hollow between the two hills, and when, more than twenty years ago, this spot, east of the present high school, was first disturbed as a place for building sites, I watched the excavation, and the workmen came upon a mass of human remains, accoutrements, etc., from which I picked out bones, buckles, buttons, and other articles. There was used the lime.

The British distributed their wounded in Boston in various places, at the houses of loyalists, — in schools, buildings, etc., providing comfortably for the officers. Their hospital, the only one so called, was a large wooden building opposite Park Street Church, standing on what was then called "Long Acre," that had been used for various purposes — a granary, linen factory, and work-house. This seems to have been fitted with some care. After the evacuation of Boston by the British, it was natural that the provincials should bring their sick to the same receptacle. Dr. John Warren, in a deposition made to the provincial council April 9, 1776, testified that he found in the medical store-room of this building, large quantities of medicine with which were intermixed white and yellow arsenic. He added that Dr. Samuel Scott had found the same.

During the whole time of the occupancy of Boston by the British army after the affair at Concord, they were meditating an inroad into the country, especially in the direction of Worcester. It was natural therefore that they should have wished to be rid of all incumbrances of sick and wounded; so they sent as many as possible to England. They had a terrible summer in Boston from heat, and almost a plague of scurvy, and a lack of fresh food. I found in a London paper the arrival at Plymouth, on September 14th, of the transport Charming Nancy, which left Boston August 20th, having on board General Gage's lady, one hundred and seventy sick and wounded officers and soldiers, with sixty widows and children; two more vessels with similar cargoes left Boston on the same day, and their arrival was hourly expected. The seeming inhumanity connected with these plague-stricken ships was passionately commented upon in the journals, and the fact that these victims were thus disposed of has an important bearing on your question as to the facilities for hospital treatment here at the time.

On February 24, 1776, the lieutenant-governor of the province, Thomas Oliver, addressed the following letter to the Rev. Dr. Caner, of King's Chapel, Colonel Snelling, Major Paddock, Captain Gore, and Captain Gay:

"GENTLEMEN, — Having occasion for a large commodious house for the purpose of a hospital in which the poor infirm and aged can be lodged upon the charity in which you are appointed stewards, and having the consent of the proprietors in town of the house commonly called the Green Dragon [in Union Street] to apply that to this purpose, you are hereby required to take possession of said house, and prepare it as a hospital for the reception of such objects as shall require immediate relief, for which this shall be your authority."

Very sincerely yours, GEORGE E. ELLIS.

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THE DISEASES OF AMERICA.[1]

BY DR. JOHANN DAVID SCHÖPFF,
Surgeon of the Anspach-Bayreuth Troops in America.

TRANSLATED AND EDITED BY JAMES R. CHADWICK, M. D., OF BOSTON.

IT is wonderful that during this whole war [1775–1783] no contagious fevers have spread among the troops. Different varieties of them have of course been seen in the hospitals; where the latter have been crowded, continued fevers have often absorbed all the poison of the contagious ones and been converted into such, yet they have never spread outside the hospitals, but have been soon arrested by the removal of a part of the patients. With respect to the dysentery I cannot recall that it has ever been especially contagious. The young girls and children of this country, whose chief delicacies are unripe and sour apples, especially when baked and served with milk, make evident the insignificant rôle played by unripe fruit in the production of these diseases. Our men suffered principally from dysentery during the first summer and autumn after our arrival; this was, however, to be ascribed more to general causes than to contagion.

The winter is also accompanied by the host of inflammatory affections, and especially those of the chest, which are its attendants everywhere. Quite recently the physicians had scarcely anything to do throughout the whole winter. Fur garments and stoves are but little used by the inhabitants of the country, with the exception of the Germans; one source of hibernal diseases is consequently cut off. The troops, owing to their service and to the absence of the comforts of civilization, are more exposed to the inclemencies of the winter and feel its severities more keenly. Damp quarters and the scarcity of vegetables toward the end of winter give rise, in addition, to isolated cases of scurvy[2] in the army; Seyboth's regiment in 1779 suffered more from scurvy in Rhod-Eyland than any other in the army has ever done. Two forms of disease, which are common in England and other parts of Europe, but not in our fatherland, so far as I can remember, also occur here: *croup* (angina membranosa), which consists of a membranous skin lining the air passages and recognized chiefly by a high cooing tone during inspiration; and the *mumps*, which is a swelling of the glands in the neck and of the testicles. Both are principally confined to children, and the latter seems almost to belong to the contagious diseases; at any rate, a whole school of boys has often been attacked by it.

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[1] Continued from page 724.

[2] "During our sojourn in this place (Long Island) I often saw people buried up to their necks in the earth; for in this manner they cure the scurvy." (Riedesel.)

Two other of the popular medical superstitions of the day are recorded by this charming writer: "It is said that the smoke made by burning cedar is very injurious to the nerves; so much so as to cause women with child to bring forth prematurely." (Riedesel, page 115.)

"Maple sugar has only one fault, that it is too brown; otherwise it is right good, especially for diseases of the breast." (Riedesel, page 193.)

I have made a point of opening the bodies of those who have died in our hospital, when time, place, and circumstances have allowed. This calls to my mind one point which seems to me quite remarkable. In at least two thirds of the autopsies we have found large or small clots in the cavities of the heart and the large vessels; they are white and of a thick, viscid consistency, like the fibrinous coat on the blood in inflammations, or like the inorganic gelatinous membranes which I have often seen covering the surface of the lungs and other internal organs after inflammations. In all these cases there was good reason to think that their formation was of remote date, though in many instances there had been no symptoms pointing to such an affection. I cannot recall having seen or heard of so frequent an occurrence of clots in the various anatomical schools which I have attended. If it is true that they are less often noticed elsewhere, I can discover no more common cause to explain this fact than the greater consumption of spirituous liquors to which our men are here addicted. A quart of rum is given to a man in seven days, but the majority take twice as much in that time,[1] and the injurious effects of intemperance are often manifested by intestinal derangements, slow fever, general loss of strength, with which train of symptoms many depart from this world. Rum and water, under the name of "grog," is the universal drink in America; it is deemed the healthiest and best of beverages, and really is of use in the warm seasons of the year, when the strength of the whole body and especially of the digestive organs is greatly impaired. While the army is on the march, the men are constantly seen mixing their rations of rum with the drinking water, whereby not only does the latter lose a part of its chilliness, but a more invigorating effect is produced, and many troubles averted which might come from the inordinate use of the former. But it hap-

[1] A letter of August 2, 1775, says: "It is not to be wondered that the fatigue of duty, bad accommodation, and the use of too much spirits should produce fevers in the camp. The soldiers cannot be kept from rum; sixpence will buy a quart of West India rum, and a fourpence is the price of a quart of this country rum." (History of the Siege of Boston, by Richard Frothingham, Jr.)

"Camp near Ticonderoga, July 5, 1777. In consideration of the heat of the weather and the alacrity with which the men have worked, a refreshment of rum will be given to the whole army, at the rate of O½ a man." (Burgoyne's Orderly Book, Albany, 1860.)

pens here as everywhere else that the lovers of rum are wont to extol its merits not in hot weather alone, but also in cold, in moist, in foggy, and so on throughout the year.

The rations[1] that are given to the troops in the British service in North America are, as is the pay, better than in any other service. One man receives in seven days, or seven men receive in one day, eight pounds of beef, four pounds of salt pork or six pounds of boiled beef, three pints of peas, half a pint of rice, six ounces of butter, nine and one half gills of rum (eight gills make a quart), and during the summer months one quart of thin beer, brewed from the cones of a species of pine, and called spruce-beer.[2] This seems to be one of the best possible rations for troops. At any rate, as I have already said, nothing is heard among the troops here of the common contagious diseases, about which physicians with other armies, especially during the last war in Europe, have talked so much.[3] Despite all that has been said about the injurious effect of pork, — which may have been the reason of its having been forbidden by the Mosaic law, — in this army, notwithstanding the constant consumption of salt pork, no ill effects have been observed, and moreover scarcely anything is known of the common skin diseases which used to be laid to its account; when affections of the skin have occurred, they have invariably been produced and kept up by a neglect of external cleanliness. The troops prefer salt pork to boiled beef, or even fresh meat, and soon tire of the latter especially. Fevers with eruptions are rare, at least in the army. In nearly four years I have had but two patients with eruptions like the purples. Small-pox loses much of its attendant horror and danger from the general inoculations.[4] As there are always some cases of small-pox in New York, partly in the natural and partly in the modified form, it has gradually become the custom to inoculate all the prisoners and renegades who come here and have not had the disease, and that, too, without respect to age or season. There are very few instances, I might almost say none, of any ill effect from inoculation. I have heard trustworthy people assert that they have not lost one out of three thousand or four thousand individuals whom they have inoculated. I was an eyewitness of the following event: More than three hundred prisoners who took the small-pox last winter were confined in a sugar-house without other beds than woolen blankets upon the hard floor, without other diet than the above-mentioned rations, without treatment other than a few cathartics; yet all recovered in the most favorable manner. If there were no other advantages attending inoculation, the relief from the habitual dread of catching the disease would be reason enough for continuing its practice.

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[1] In September, 1776, the ration in the American army was "one pound of beef or pork, one pound of bread or flour a day, a small quantity of vegetables, when to be had, one gill of rum or whisky a day; a small quantity of vinegar, salt, soap, and candles a week. (Thacher.)

[2] "After May, the troops received so-called English small or table beer, one quart a day to each man. 'It was,' writes a German soldier, 'made from wood, herbs, and molasses, *i. e.*, boiled syrup, tastes quite sweet, is healthy, good to drink, and resembles our wood-tea or Brust-trank.' The Germans therefore called it Brust-bier, because it tasted like Brust-thee." (Eelking, Die Deutschen Hülfstruppen, page 169.)

[3] "The hospitals (in America) were most excellent, so that in spite of the severity of the climate, no such ravaging plagues prevailed as we have seen in the subsequent wars." (Von Ochs.)

Von Ochs was adjutant of the Hessian Colonel von Würtemberg, who commanded the British advance posts at Kingsbridge. This colonel received news from a French lady that the French under Rochambeau, together with the American army, really intended to capture Cornwallis, and not to make the descent upon Staten Island. General Clinton, however, gave no credence to the story. Vide Von Ochs, l. c., page 57.

[4] Inoculation with small-pox matter was introduced into Boston, at the instance of Cotton Mather, by Zabdiel Boylston in 1720, "who began to inoculate at the risk, not only of his practice, but even of his life. The friends and enemies of the practice filled the newspapers of the day with arguments for and against it. The whole of the influence which the learning and piety of the New England clergy has always given them was exerted; and the

There are very few people in Rhod-Eyland who have had the small-pox. In deference to the sentiments of the greater part of the old inhabitants, who dread inoculation quite as much as infection, and in part owing to the obstinacy of several influential families, the greatest efforts are constantly made to avert any possibility of contagion. To prevent the dissemination of the poison, it has for many years been the custom to send those really affected, or supposed to be affected, with small-pox, to a small eyland that lies near Rhod-Eyland. In order to propitiate the inhabitants, inoculation was repeatedly forbidden while the royal troops were there; since we have left, every wagon that arrives from this city is anxiously searched. On the other hand, the inhabitants

whole of it was necessary to induce his hearers to consent to inoculation. The practice by degrees extended from New England to New York and Philadelphia, and finally to Charleston, where it was partially adopted in 1738, and afterwards became general in 1760." (A Review of the Improvements, Progress, and State of Medicine in the XVIIIth Century. David Ramsay, M. D. Charleston. 1800.) Small-pox was rife in Boston during the occupancy of the British troops (1776). On July 3d orders were given for a general inoculation of the inhabitants and troops. General Washington was inoculated in New York on June 27, 1776.

(Solomon Drowne, M. D., of Rhode Island, to Miss Sally Drowne.)

"GEN. HOSP., N. Y., *July* 13, 1776.

"I am glad our Assembly have allowed of Inoculation, and hope you and Brother Bill will not defer receiving that disease (y^e S. Pox) which taken by chance have proved the Bain of tens of Thousands; when it comes so near you, cloathed in gentleness, — all its Terribleness cast aside." (New York during the American Revolution.)

The New York Packet for June 27, 1776, has the following item: "Williamsburg, Virginia, June 15. We learn from Gloucester that Lord Dunmore has erected hospitals on Guyon's Island; and that his friend Andrew Sprawle is dead, and that they are inoculating blacks for the small-pox. His Lordship, before the departure of the fleet from Norfolk Harbor, had two of these wretches inoculated and sent ashore, in order to spread the infection, but it was happily prevented."

In December, 1779, Mrs. General Riedesel took her children to the country-seat of General Clinton, near New York, for the purpose of having them inoculated. "Carolina lost her whooping-cough, but immediately after it came back and lasted a whole year." (Riedesel.)

scarcely dare to leave the eyland, but if they must come here, they are forced to submit to inoculation, in order to escape infection. The treatment of the patients on the little eyland, which is consequently called Bladder-Eyland, is not the most careful. The eyland is only separated from the main land by a channel about fifty paces wide. No one ventures to cross as long as there are patients there. The means of subsistence are laid upon the shore, where they are sought by the man who is appointed to look after the sick. A physician rarely, if ever, crosses to the eyland, as he would not be allowed to visit any of his other patients subsequently, for fear lest he should transmit the contagion. When he must cross in spite of the risk, he visits the eyland in a complete suit of oil-silk, which is quite enough to excite alarm in the young or weak patients. As a rule, however, he inquires after the sufferers from this side of the channel, and prescribes at that distance.[1]

Most new-comers to this country have to pay tribute to the climate by some indisposition or other, especially if they land during the hot season of the year. Our troops arrived here in July. From that time till October most of our men were, one after another, in the hospitals of New York, or in the regimental hospitals on Staaten-Eyland or at Harlem; there were very few who escaped without an attack of dysentery or fever. During the first twelve months we lost many men, but during the next twelve months barely thirty, and now, as a rule, hardly more than we lose in our fatherland. A sound European constitution soon accustoms itself to all the inclemencies of the climate, so that most of the patients in the hospitals are usually recruits. One fact is worthy of mention in this connection, which perhaps testifies as forcibly as anything can to the need of acclimatization, and is moreover universally admitted to be true. In a new-comer, almost every bite of the mosquito (culex pipiens, L.) produces a boil during the first year after his arrival, but fails to have this effect in the subsequent years.[2]

The contrast between military and civil practice is very great. In the former the command "You must take this or that; you must be healthy" is often supreme. Death, to be sure, often refuses obedience, but for a long time he has treated us with indulgence. Just as hypo-

[1] Dr. Jenner vaccinated his first patient in 1796. This practice was introduced into America in the same year by Dr. James Jackson and Dr. Waterhouse.

[2] It is strange that the protection afforded by inoculation of various animal poisons, especially as illustrated by the effect of mosquito bites upon recent immigrants to this country, should have escaped comment for nearly a century, until attention was called to it by Dr. J. C. White in the Boston Medical and Surgical Journal for November 9, 1871.

When in London during the spring of 1873, I heard that one of the great hotels was infested by mosquitoes, and that the effect of the bites was so dreadful as to drive most of the English guests from the house. As mosquitoes had never before been seen in England, and had not appeared in any other quarter of the city, it was presumed that the insects were introduced by some American in his luggage. It would be interesting to have a report of this invasion from some medical man in London.

chondria blunts our senses in time of peace (in war its mark is worth nothing), so does a tumult sometimes render us indisposed to serious study; no one, however, would wish to, or could, remain indifferent to fortunate or unfortunate, to political or warlike events in which his interests were at all involved.

P. S. January 20, 1781. The departure of several returning invalids has been delayed until now, and I have had no opportunity of forwarding the letter sooner. This winter is precisely the reverse of the last; it almost seems to me as though Heaven wished to give us during our stay a sample of all the marvelous peculiarities of the climate, and then perhaps to send us home in peace. The summer of 1779 was unusually moist and unhealthy; it was followed by an exceptionally cold winter, and this succeeded by a burning hot summer. The present winter has been so mild that I have not seen the thermometer below the freezing point of Fahrenheit more than three times; it has commonly stood between 40° and 60°. We have had but few fires, and have often dined with open windows and doors. The grass has remained quite green, and in many spots has even been growing. Instead of snow, of which we had a sample as early as November 1st, we subsequently had rain. We had a Carolina winter. Last night with a northeast wind we had a fall of snow, but it will not lie long. The coming summer will probably be unusually cold in order to complete the list of paradoxes.

NEW YORK, *February* 18, 1781.

Our winter has remained very mild, though we have had several severe storms this month, and some frosty days. The thermometer has not however as yet been more than six or eight degrees below the freezing point. It may have stood lower during some of the nights. The troops have been very healthy. There are not more than two hundred and fifty patients in the principal hospitals,[1] and to judge from the condition of our men, scarcely one in twenty-four is sick; these affections are trifling, or attack those with feeble and decrepit bodies, as might occur anywhere.

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[1] One of the principal hospitals was the building occupied by King's College, which after the war was revived as Columbia College.

The New York Hospital was organized in 1769, but the foundation was not laid until July 27, 1773; the building was nearly consumed by fire on February 28, 1775. The loss was estimated at £7000, to meet which the legislature granted £4000, but the completion of the edifice was prevented by the war, during which the house was occupied by the English and Hessian soldiers as barracks, and occasionally as a hospital. Vide Historical Sketch of the College of Physicians and Surgeons of the University of the State of New York, New York, 1813; also An Account of the New York Hospital.

A CASE OF METASTASIS OF MUMPS TO THE TESTES AND THE BRAIN.

BY O. B. SHREVE, M. D., OF SALEM.

ON the 1st of March I was called to attend a young man, twenty-five years of age, unmarried, by occupation worker in railroad telegraph signals, of large frame, light hair and complexion, and fine muscular development. His previous habits had been good, and he had enjoyed good health up to that time. About three or four months before he fell some thirty feet, but rapidly recovered from the effects of the fall, without any symptoms of concussion of the brain or spine.

The present disease declared itself by the following symptoms and under the following circumstances: Headache, loss of appetite, and moderate amount of fever, slight acceleration of pulse, and swelling of the parotid glands and the tissues in their neighborhood. This condition continued for two days, when my visits were discontinued, and he was advised to remain in the house and keep warm.

This caution was not regarded, as he waded out in the yard in the snow. On the 4th I was again called, and found him in a high fever, with a full, bounding pulse, furred tongue, pupils dilated, pain in head, subsidence of parotid swelling, and turgescence and pain in the testes, with delirium at night. His condition continued about the same until the morning of the 9th, when I found a most decided change for the better; he was perfectly rational, his pulse seventy-two and soft, temperature normal, countenance natural in expression, all parotid swelling having disappeared, small amount of swelling of testes and no tenderness. His condition continued the same until one o'clock the next morning, when he awoke suddenly from sleep with raging delirium, and three or four attendants were required to prevent him from injuring himself. The face and eyes were congested, the pupils contracted, the pulse hard and bounding 120 to the minute. The temperature was high as felt by the hand, the use of the thermometer being impossible on account of the violence of the patient.

These severe attacks were ushered in by a sudden rigidity of all the muscles of the body, and followed by distinct opisthotonos, which was succeeded by violent struggles, during which he attempted to bite, kick, or strike his attendants, and failing in this he gave utterance to the most fearful shrieks. He became so violent and was possessed of such great strength, that it became necessary to confine him by a strait-jacket. Bromide and chloral seemed to have no effect on him, although administered in large doses. On the morning of the 12th the struggles ceased, the pulse became weak, the body was bathed with perspiration, and the patient died comatose.

REPORT ON SURGERY.

BY J. COLLINS WARREN, M. D.

Chloral in Surgery. — Intra-venous injections of hydrate of chloral were first employed to produce anæsthesia during surgical operations by M. Oré, of Bordeaux, early in 1874. Drs. Deneffe and Van Wetter, of the Société de Médecine de Gand, have reported twenty-two cases in the proceedings of that society, in all of which the anæsthetic was successfully employed, no unfavorable results being produced. The solution used consisted of one part chloral to three or four of water. The median basilic vein was punctured without previous incision of skin. Fifteen grains of chloral were injected once a minute for about ten minutes, four to ten grammes of chloral being the amount usually injected.

During this operation no special changes were observed in the patient's condition beyond a slight acceleration of the respiration and an increase in the rapidity of the pulse, which varied in the observations reported from 97 to 132. The patient at first began to talk indistinctly, then gradually fell asleep, and by the time the last dose of chloral had been injected complete anæsthesia had been produced, which lasted for about an hour and was followed by a quiet sleep of several hours. In one or two cases a slight attack of hæmaturia was observed, but no other evil results were noticed. The anæsthetic was employed in several cases operated upon by M. Soupart: an amputation of the arm, the removal of a cancer of the uterus, an operation for the cure of ruptured perinæum, and also in several operations on the eye, in which latter it is said to have acted very favorably, there being no vomiting or period of excitement usual with other anæsthetics. These gentlemen claim a number of advantages for this anæsthetic method over others: —

1. It is as safe and rapid as the surgeon can desire.
2. The dose of the anæsthetic can be graduated with mathematical exactness.
3. The duration of the anæsthesia can also be accurately regulated.
4. There is no vomiting or period of excitement.

Dr. Warloment[1] says the absolute anæsthesia and the sleep which follows the intra-venous injection of chloral are of great advantage in procuring, during the operation for extraction of cataract, a complete immobility and subsequent perfect repose with absence of vomiting.

Twenty-two cases are given in the society reports, and in none were unfavorable symptoms observed, if we except three cases where slight hæmaturia occurred. A later report records eight more cases, the last of which, where the anæsthetic was employed during the operation for cataract of both eyes, proved fatal. Sudden syncope occurred just as the first cataract had been extracted. The electrical machine, which at first restored the pulse and respiration, for some reason failed after a few moments to produce any current. The bad symptoms returned, and the patient died. At the autopsy nothing was found pointing to the method of employing the anæsthetic as productive of fatal consequences.

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[1] Annales d'Oculistique, vols. iii. and iv., 1874.

M. Lande, of Bordeaux, has had a case of death following this method of producing anæsthesia. The case itself, a difficult and bloody ovariotomy, may however have contributed largely to the result.

Chloral has been extensively employed in France during the past eighteen months in the treatment of tetanus. Previous to 1868 M. Verneuil had not seen a case of tetanus cured; since then he has employed chloral and has had five recoveries from this disease, a proportion of two fifths. He has employed it in various ways, by the mouth and also by the rectum. He does not recommend subcutaneous injections, fearing local inflammations. Intra-venous injections should not be tried, he thinks, until other modes of administration have failed. Administered by the mouth it has been found to arrest convulsive action of the muscles if given in small and frequently repeated doses. M. Delsol reports in the *Gazette Hebdomadaire*, 1874, No. 31, four cases treated in this way, with three recoveries.

M. Pugliere reports in the *Lyon Médicale* two cases of tetanus treated by chloral. The first, a man aged fifty-five, was seen by him twelve hours after the first appearance of the disease. There had been no injury of any description. The trunk and inferior extremities were chiefly affected. Eight grammes of chloral were ordered to be taken in eight doses, at intervals at first of half an hour and subsequently at longer intervals. At the fifth dose the spasms ceased, and the following day the patient appeared quiet. Two hours later the symptoms returned, and the following day ten grammes were ordered in divided doses. The next day the patient was reported perfectly comfortable. The symptoms however returned, a quack was summoned, and the patient died. The second case was traumatic in its origin and the symptoms typical; one gramme of chloral ordered every half-hour; at the sixth dose the spasms had diminished greatly. The patient slept for three hours. Chloral was continued in greater or less quantity according to the symptoms. The patient was kept under the influence of chloral for three weeks, during which time he took one hundred and twenty grammes and recovered. M. Pugliere suggests that chloral administered in this manner acts better than either chloroform inhalations or intra-venous injections of chloral, as under these circumstances the chloroform expends its force chiefly upon the brain, whereas chloral which has been administered by the stomach after it reaches the circulation sets free chloroform, which thus acts upon the entire nervous system. M. Ribell reports in the *Bulletin et Mémoires de la Société de Chirurgie de Paris*, No. 2, a case of tetanus, following metrorrhagia with purpura hæmorrhagica and vaginal diphtheritis, treated successfully by hypodermic injections of chloral. This occurred two months after a confinement. On the fourth day tetanus appeared. One gramme chloral was given by the mouth every half-hour. At the sixth dose the spasms ceased and the patient slept. The symptoms returned on awakening. The next two days the same treatment. On the following day two grammes were injected subcutaneously at the sides of the neck, at nine o'clock. At ten, injection repeated; also at eleven, twelve, one, and two o'clock. At the fifth injection the patient fell asleep and slept nine hours. The next day a slight return of symptoms, which were controlled by an injection. In all, fourteen grammes of chloral were injected.

M. Oré reports a case in the *Gazette Hebdomadaire*, March 13, 1874, treated successfully by intra-venous injections of chloral. Three injections of ten grammes, repeated at intervals of twenty-four hours, produced perfect quiet and relief from pain.

M. Lannelangue reports in the *Gazette des Hopitaux*, October 27, 1874, a case of traumatic tetanus, unsuccessfully treated by intra-venous injections of chloral. The autopsy revealed clots in the veins extending some distance above the points of injection, and in the right side of the heart, entering also into the pulmonary artery. The lungs were found strongly congested at the base and towards their posterior parts.

M. Cruveilhier reports a case in the same journal, April 10, 1874. A mechanic aged thirty-four entered hospital with a crushed hand. On the 18th, symptoms of spasms of muscles of face and throat, followed on the 20th, in spite of morphine given subcutaneously, by opisthotonos. On the 21st, nine grammes of chloral were prepared in ten grammes of water, and three grammes of chloral from this solution were injected into the vein of the elbow. In fifteen minutes the patient was asleep, and slept a few hours; three hours after awaking he was in the same condition as in the morning. On the 22d, five grammes injected, followed by several hours' sleep. 23d, three grammes. 24th, no improvement; five grammes injected through an opening in a vein at elbow made by the lancet. 25th, enema of four grammes chloral, with relief; the dose was repeated in the evening. 26th, the patient slept during the night. The report says much weakened, much thirst; nine grammes injected into the saphenous vein behind the malleolus. The patient felt a painful sensation all over the body at this moment, but immediately fell asleep and never awoke, dying the following day. At the autopsy, an abscess was found at the vein first punctured in the elbow. Some sloughs, and the wall of the vein gangrenous. All the other veins punctured were slightly thickened, the inner wall roughened, and contained clots. There was injection of the vessels about the cord and nervous centres.

M. Labbé treated a case of tetanus, reported in the same journal, by intra-venous injections of the same solution of chloral, giving gradually during sixteen minutes ten grammes of chloral, which relieved the convulsions, and produced sleep for six hours. The symptoms returning, the patient died at the end of twelve hours. There were no clots in the veins.

Experiments on animals show chloral to be an antidote to strychnine. Rajewsky shows[1] chloral to be an antidote to strychnine in rabbits, both preventing and curing tetanus. This action of chloral has been repeatedly demonstrated experimentally.

Dr. Will reports, in the *Edinburgh Medical Journal* for April, a case of strychnine poisoning cured by chloral administered hypodermically and by the mouth. Five or six grains of strychnine had been taken. The patient was nearly moribund, when thirty grains of chloral were given by the mouth, followed shortly after by a hypodermic injection of the same amount. These doses were repeated later in the day, and the following morning the patient was convalescent.

Dr. Charteris, of Glasgow, reports a similar case of poisoning in the *Lancet* of April 10th, cured by chloral administered by the mouth.

These cases serve to illustrate the various methods of employing this agent. In grave cases, like tetanus and strychnine poisoning, the hypodermic would appear to be an advantageous method of giving chloral, being easily administered, rapid in its action, and rarely, if we may judge from cases reported, producing local inflammation. In tetanus, administration by the mouth or rectum would be either difficult or likely to bring on convulsions. Intra-venous injections of chloral might be resorted to if other modes of administration failed to produced the desired effect. It is hardly necessary to add that its employment in this manner as an anæsthetic in surgical operations would hardly be considered justifiable.

Parenchymatous Injections of Carbolic Acid. — Hüter's method of parenchymatous injections of carbolic acid into inflamed tissues is illustrated by extracts from his paper on this subject, given in the *Centralblatt für medicinischen Wissenschaften*, 1875, 14. In chronic inflammation of the joints, — white swelling, for instance, — in case the treatment was fully carried out, there was an improvement in the function of the joint sufficient to permit locomotion, together with subsidence of swelling and pain, and in no case was there any injury done by treatment, no suppuration or formation of fistulæ. In caries of the bones resulting in softening of the bone without formation of fistulous openings, the needle was thrust through the cortical substance and the injections made into the medullary cavity were followed by a subsidence of the inflammatory processes. These injections were continued so long as the cortical layer was soft enough to permit the needle to penetrate into the medullary cavity. This treatment employed in caries of the tarsus effected a closing of many fistulous openings, diminution of the discharge from those that remained, together with diminution of the swelling of the foot and diseased bones, cessation of pain, decided improvement in the general condition of the patient, and a restoration of function to the part. Cavities with serous and synovial exudations were treated in this way; six cases of hydrocele are mentioned, also three of housemaid's knee and one of miner's elbow. It was found necessary to empty the sacs before injecting, to prevent any coagulation. In the case of hydrocele, five to seven grammes of a two per cent. aqueous solution were injected; there was no pain or inflammatory swelling following the treatment. The solution generally used was of two per cent. strength. In injections into connective tissue or the cavities of joints, two grammes was the maximum amount used. For a full account of Hüter's method the reader is referred to the *Deutsche Zeitschrift für Chirurgie*, part iv., 1874.

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[1] Centralblatt, 1870, pages 211 and 225.

Dr. Hirschberg describes in the *Berliner klinische Wochenschrift*, No. 48, 1874, a case of erysipelas treated by Hüter's method, which he considers most effective in arresting the progress of the disease. A butcher fell upon his knife, and on examination a few hours later a horizontal cut was found just above the elbow-joint, about five inches in length. The knife had penetrated into the muscles. There had been considerable venous hæmorrhage, and the patient complained of pain above the seat of the wound, where there appeared to be a considerable effusion of blood. Six sutures were taken. On the evening of the second day erysipelas had set in with considerable pain, and had already reached the middle of the arm. The borders of the wound for a breadth of three inches were of a dark red color. Suppuration appeared inevitable. Dr. Hirschberg injected with a subcutaneous syringe a two per cent. solution of carbolic acid under the skin at the upper border of the erysipelas; on the following morning the erysipelas had entirely disappeared, although the dark red color of the edges of the wound still remained. During the three following days five injections of the same fluid were made. Beyond a stinging pain of a few hours' duration at the point of puncture, there was no special disturbance caused by the injections. On the fifth day the sutures were removed and the wound had healed except in one superficial spot. In the opinion of the reporter of this case not only had erysipelas but also suppuration been prevented by the treatment.

Dr. Stukowenkoff[1] employed injections of carbolic acid in sixteen cases of erysipelas in the Military Hospital at Moskau. Various parts of the body were affected. The treatment began on second to the fourth day. Beginning later or earlier seemed to have no perceptible influence on the duration of the disease. The injections did not prevent the spreading of the disease on the skin. The cases, however, terminated favorably. If several injections were made into an inflamed spot, considerable diminution of pain and redness followed. The process seemed to be shortened and the fever diminished in those cases in which the acid affected the system, — and this occurred also when the injections were made at some distance from the affected part.

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[1] Centralblatt für Chirurgie, No. 9, 1875.

Dr. E. Y. Munsell, of Rockport, Mo., reports in the *Medical and Surgical Reporter*, April 17, 1875, two cases of erysipelas in which the cause of the disease appeared to be arrested by subcutaneous injections of a one per cent. solution of carbolic acid.

Treatment of Lymphosarcoma by Arsenic. — Dr. Tholen reports in the *Archives für clinische Chirurgie*, vol. xvii., four cases of lymphosarcoma treated by arsenic in the manner previously employed by Billroth in two cases. The first case was of three months' duration. The tumor, originating from near the angle of the lower jaw, grew forwards towards the skin, and up on the side of the mouth, so as to interfere with the movements of the jaw. The diagnosis in this case was somewhat doubtful; a small piece removed suggested epthelial cancer. Treatment was begun at the end of May and continued until November. From three to five drops of Fowler's solution were given, on an average, daily, and about twelve injections of ten drops at a time were made into the tumor during the month. The tumor entirely disappeared, and two years later there was no return of the disease. The second case was a malignant lymphosarcoma of the cervical glands and tonsil. Lymphatic glands elsewhere enlarged. After five months of a similar treatment the neck had nearly recovered its normal contour. In the third case a large bunch of glands in the supra-clavicular and axillary region yielded to the arsenic at the end of two weeks, and subsequently disappeared entirely. In this case the patient died two months later, not, however, from this disease. In the fourth case the patient was seen too late to carry out the treatment. These cases the author thinks confirm, so far as they go, the views of the ancients in regard to the action of arsenic in malignant disease. This remedy would seem to be more effective in that form which more nearly resembles the inflammatory processes. It is to be used with the greatest caution; the condition of the tumor being carefully watched. The parenchymatous injections are, in the writer's opinion, more suited to carcinoma. Benign lymphatic tumors of the neck treated in this way were not altered.

Rose's Method in Operations upon the Jaws. — Dr. Burow, of Königsberg,[1] publishes two cases of operations on the jaw, in which he employed Rose's method of placing the head so as to prevent the blood passing into the trachea or pharynx, thus avoiding the necessity of performing tracheotomy, which is itself an important operation, and is, of course, liable to its own mishaps.

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[1] Berliner klinische Wochenschrift, February, 1875.

Rose proceeds as follows: The patient is to be placed with his head in such a position that all danger which may occur from blood being in the mouth during deep anæsthesia may be prevented. He should be anæsthetized lying on his back, if possible; then the cushion under the back being removed, so much of his body should be drawn over the edge of the operating table that his head should hang down, with the crown vertical, in which position it should be fixed by a trustworthy assistant kneeling at the side. The operator sits (or stands) in front of the patient, consequently he has to invert all his incisions (*i. e.*, make them from chin to vertex), and the blood thus flows out partly through the mouth, but the greater part of it by the choanæ and nose.

The operations for which Rose has generally employed or has proposed this proceeding, are resection of the upper jaw, uranoplastics, rhinoplastics, laryngotomy, tonsillotomy in children, and hare-lip cases, the latter without an anæsthetic, so as to prevent the swallowing of blood and the resulting disturbance of the digestion.

Rose has kept patients sixty-five years of age from two to three hours in this position under anæsthesia without unfavorable symptoms presenting themselves. There was evidence of obstructed venous circulation, and the head became decidedly swollen. Bleeding was freer than in the usual position, but the operation was much more quickly performed.

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ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.

June 8th. — The meeting was called to order by Dr. Cotting, the president, who then resigned the chair to the vice-president, Dr. Sargent, of Worcester. A paper on the Treatment of Typhoid Fever by Cold Water was read by Dr. R. T. Edes, who declared himself a firm believer in the efficacy of the treatment. Dr. George E. Francis, of Worcester, read an excellent paper on the Obstetric Forceps as a Time-Saver; his remarks on the duties of the physician to mother and child were very eloquent. A paper on the Microscopy of the Urine was read by Dr. George H. Pillsbury, of Lowell, after which the meeting adjourned till the afternoon.

At three o'clock Dr. Leonard Wheeler, of Worcester, presented the latest views on the Inner Surface of the Uterus after Parturition, and Dr. F. W. Russell, of Winchendon, read a very long paper on Alcohol in some of its Pathological and Social Relations. In the evening Dr. C. J. Blake made some interesting remarks on a New Use of the Membrana Tympani, which were finely illustrated by figures projected on a screen by the oxyhydrogen light.

At the meeting of the council the president and vice-president were reëlected. Dr. Minot resigned the office of treasurer, and Dr. Draper was chosen to fill his place, Dr. Goss being made secretary. The committee of arrangements remains unchanged. That for procuring scientific papers consists of Drs. Williams, Ellis, and Wigglesworth, of Boston, Dr. Stebbins, of Springfield, and Dr. Paddock, of Pittsfield. Dr. P. L. B. Stickney, of Springfield, was chosen orator, and Dr. John H. Mackie, of New Bedford, anniversary chairman.

JUNE 9TH. — The regular business of the society was quickly transacted, and presented nothing of interest. Dr. Ira Russell, of Winchendon, read a paper on the expediency of establishing State Inebriate Asylums. He earnestly advocated the fitness and usefulness of such institutions on the ground that inebriety is a disease, and as such ought not to be punished, but treated rationally, with a view to recovery. He urged the founding of several asylums in the State, so that chronic alcoholism could be classified and graded for proper treatment. The writer proposed the passage of a resolution by the society favoring State inebriate asylums.

Dr. Pliny Earle, of Northampton, heartily favored the views contained in Dr. Russell's paper. Inebriates, he said, are not proper subjects for treatment in an insane asylum, because of their relation to the law of the commonwealth, and because of the difficulties in the way of their management when associated with insane patients. The statutes recognize the subjects of delirium tremens as those only who can be held guiltless of crime on the plea of mental alienation, and technically these patients, while under the excitement of *mania a potu*, can be committed under the law to insane asylums for treatment; but the attack is transitory, and when it has passed, the patient, according to legal limitations, is no longer insane, and cannot be held as such. Thus the insane asylum does not offer anything but a temporary care of the inebriate. But it is not desirable, even if the law permitted it, that inebriates and the insane should be treated in the same institution, because experience has shown that such an association of the two classes works great mischief to the discipline and administration of a hospital, taxing the patience of the attendant and injuring the *morale* of the whole establishment.

On every ground, therefore, Dr. Earle advocated the establishment of independent inebriate hospitals, but without classification of patients on any basis except the degree and kind of the inebriety from which the patient suffered.

Dr. Tyler, of Boston, said the subject was surrounded with difficulties, but his feeling was that it was very necessary to establish special institutions for the care of inebriates. There are recoveries enough on record to stimulate the profession to make every endeavor for the rational treatment of this unfortunate class. He corroborated Dr. Earle's opinion that the treatment of inebriates in connection with insane subjects was impracticable.

Dr. Millet, of Bridgewater, took a view of the subject radically different from those of the previous speakers. He said he was not yet convinced of the expediency of establishing asylums for the reform of drunkards. He believed that inebriety was not a disease but a crime, and that the cure of the evil lay in moral influences and in legal punishments. He deprecated any classification of drunkards according to their social station, and urged that all should be treated impartially.

A letter from Dr. Godding, of Taunton, was read, favoring the treatment of inebriates in separate asylums, but insisting upon properly regulated, compulsory labor as an essential condition of the success of such asylums in the cure of drunkards; he also urged the necessity of long sentences in such institutions, if permanent benefit was to be had.

Dr. Woodward, of Worcester, said he had but little confidence in the permanent reform of drunkards. Inebriety, in his opinion, was a vice, not a disease, and as a vice it was better treated in penitential institutions than in asylums. If recovery from drunkenness is possible at all, it is so under the regular life and regimen of the house of correction. If commitments to the proposed asylums were compulsory, as they ought to be, such institutions would practically become penal, and would have no advantage over the existing workhouses.

After further discussion, in which Dr. Cogswell, of Bradford, Dr. Clough, of Woburn, and Dr. Bronson, of Attleboro', took part, the resolution offered by Dr. Russell was laid on the table.

After the oration, of which we have already given an abstract, the society went to dinner in the Music Hall, where Dr. Stone presided. Music was furnished by the Germania orchestra and by a glee club composed of members of the society. The chairman gave as the first sentiment "The President of the Massachusetts Medical Society, Benjamin E. Cotting, M. D., of Roxbury." Dr. Cotting said that the Massachusetts Medical Society was the offspring of necessity, coming into existence in a period of professional chaos, the like of which had hardly been equaled, and through all its poverty and struggles it had withstood the shock of nearly a century. Enrollment in its ranks gave to the practitioner a firmer establishment among his patients than the parchment of any college; from it had gone forth ideas which had reached the whole medical world. The young men must see to it that this organization shall be in the future, as it had been in the past, so great and honorable that when any one of its members should be challenged at home or abroad, he might say with pride, "I am a member of the Massachusetts Medical Society."

"Our Governor" was responded to by a letter from Surgeon-General Dale. Dr. Loring also spoke happily, saying that he felt almost like a stranger or a prodigal son returning to his father's house. When he was invited to be present, he said, he conceived that he should meet Warren the eloquent, Haywood the wise, and Ware the skillful and kind, but he looked around upon the assembled audience and found hardly a friend of former years. He had been asked by the editors of the Medical and Surgical Journal to prepare a paper on the profession in the Revolution, and in looking over authorities and documents for the work had discovered that, of fifty surgeons in the war, twenty were from Massachusetts, and six of those from the city of Boston. He spoke of the forms of practice so rude and primitive when he was a student, and so much advanced now, and spoke glowingly of the society for bringing about the result.

The Rev. Dr. E. B. Webb responded for the clergy, and spoke of the respect he felt for the medical profession. Quacks, he said, were its bane as well as of his own calling.

"Our Orator" brought out Dr. George H. Lyman. He spoke of the increasing number of charity patients in our hospitals. He said there were seventy-five thousand people in this city who did not pay their doctors anything for attendance. This ought not to be, for though there was no more liberal profession than that of medicine, there was none more imposed upon. This system bred poverty and indolence, and was very deleterious. Even if a small fee was charged, a large sum would be secured at the end of a year, which might be devoted to the benevolent society for the aid of families of indigent physicians.

"The Legal Fraternity" was responded to by R. M. Morse, Jr., who likened himself to the umbrella of Mathews, which he hung up for the audience to watch. He considered himself but a lay figure in the entertainment.

"The City of Boston" was responded to by Curtis Guild, with an allusion to the coming centennial and a tribute to Dr. Joseph Warren, the orator, the patriot, the soldier, and the physician. He gave, "The physician; he who so often presides at our exit from, and entrance upon, the stage of the world. We owe to his services as prompter in many acts of the drama of life the preservation of proper power for the faithful performance of our several parts."

"To those who will gather with us no more" was responded to by the chairman reading Integer Vitæ, while the audience was standing. "The Institute of Technology" was responded to by Professor Pickering. "The Young Men of our Profession" was responded to by Dr. J. Collins Warren, who spoke of the work done by young men in medical literature, and their efforts in behalf of the profession.

The exercises closed by the reading of a poem by the chairman in response to the sentiment, "Brothers, good-by."

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THE MEDICAL PROFESSION IN MASSACHUSETTS DURING THE REVOLUTIONARY WAR.

Dr. Loring's valuable article on the Medical Profession in Massachusetts during the Revolutionary War has brought to our attention a number of interesting facts concerning the profession of that period. We are happy to add the following list to that already given, particularly as it contains names well known and honored in the community to-day.

Henry Adams, born at Roxbury, 1758; H. U. 1775; surgeon in continental army from 1777 till the close of the war.

David Cobb, born in 1748; died at Boston, 1830; H. U. 1766; was practicing medicine in Attleborough when the Revolution broke out; was the colleague of Robert Treat Paine, and a signer of the Declaration of Independence; lieutenant-colonel in 1777; aid-de-camp to General Wa hington in 1781, and a member of his family; brigadier-general by brevet when the war closed; judge of the court of common pleas in 1784; major-general of the Massachusetts militia from 1786 to 1793; speaker of the house from 1789 to 1793; then chosen a member of the third congress; senator from the eastern district in 1802; lieutenant-governor in 1809. He was a member of the American Academy of Arts and Sciences, of the Massachusetts Medical Society, and vice-president of the Massachusetts Society of the Cincinnati in 1810. Our present honored mayor, Samuel C. Cobb, is a grandson of the foregoing.

Andrew Craigie, was apothecary-general of the army for three years, and formerly owned the house where Professor Longfellow now lives. Craigie's bridge between Boston and East Cambridge was named for him.

James Edwards Burr Finley, surgeon of the fifteenth regiment.

Samuel Finley, surgeon of the fourteenth regiment.

Joseph Fiske, born in Lexington, 1752; appointed surgeon in 1777, and served for seven years; was at Burgoyne's and Cornwallis's surrenders; member of the Massachusetts Medical Society.,

Francis Le Barron Goodwin, served as surgeon from 1777 till the close of the war.

De Zeeb Green, was one of four brothers at Bunker Hill; two were wounded; one, Major James, mortally. Dr. Green served till the end of the war.

John Hart, born at Ipswich in 1751; he was surgeon of Colonel Prescott's regiment in 1775 for a year, and afterwards of the second till disbanded at the close of the war.

John Homans, born in Dorchester in 1753; prepared for college at the Latin school, and graduated at Harvard in the class of 1772. He dressed the wounds of those injured at Bunker Hill, and was commissioned surgeon of the sixteenth regiment January 1, 1776, and served till 1781. He was present at Harlem and White Plains, and at the surrender of Burgoyne, and was one of the founders of the Cincinnati; after the war he practiced in Boston. His son, John Homans, was one of the leading practitioners of this city, and for two years president of the Massachusetts Medical Society. The name has been a prominent one in the profession from revolutionary times to the present day.

William Laughton, served from 1780 to 1783 as regimental surgeon.

Benjamin Jones Porter, born at Beverly, 1763; served as surgeon's mate from 1780 to 1783.

Joseph Prescott, surgeon's mate, was in the action at Ticonderoga and served for two years in Greene's army in the Carolinas.

Abijah Richardson, born 1752; studied at Harvard for two years, 1770–72; surgeon of the fifth regiment till 1781. He was captured by the enemy near Stony Point in 1779, and was for some time a prisoner on Long Island.

Daniel Shute, H. U. 1775; surgeon of fourth regiment in 1782; afterwards practiced in Hingham.

James Thacher, served as surgeon's mate and surgeon from July, 1775, till 1783; member of the American Academy and Massachusetts Medical Society; received the honorary degree of M. D. from Harvard University in 1810. His military journal kept during the Revolutionary War is a work of great value.

Thaddeus Thompson, a revolutionary surgeon, present at Trenton, Brandywine, Germantown, and Yorktown; died in 1819.

David Townsend, H. U. 1770; M. D. 1813; studied medicine under Dr. Joseph Warren, assisted the wounded at Bunker Hill, and served as surgeon till the disbanding of the army. In 1777 was appointed senior surgeon of the general hospital of the northern department. His son, Solomon Townsend, was one of the most capable surgeons who ever practiced in Boston.

Samuel Whitwell, studied medicine under Dr. James Lloyd, and served as surgeon throughout the war.

Robert Williams, fitted for college at the Latin school; graduated at Harvard, 1773; studied medicine under Dr. Warren, but disliked the practice of surgery and served in the war as ensign, paymaster, and first lieutenant.

Samuel Woodward, a graduate of Harvard, was surgeon of the fourth regiment. He served throughout the war.

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MEDICAL NOTES.

— Dr. Harris Cowdrey died at Acton Centre on May 6th, in the seventy-third year of his age. He was born at South Reading, studied with the late Dr. Spalding of that place, and graduated at the Berkshire Medical School. He lived a most laborious and useful life, being an excellent practitioner. He was a religious man and a valuable citizen, taking an active part in the public affairs of his town.

— The recent meeting of the Maine Medical Association will be remembered as the one at which the first female member was elected. The honor was conferred on Dr. Sarah W. Devoll, of Portland. The annual address was delivered by Professor Mitchell, of Brunswick.

— A recent number of the *Lancet* gives an account of the use of twine hammocks for the transportation of invalids. They were used in the Ashantee campaign, and a short time ago a patient who had been under treatment in the Westminster Hospital for a severe burn was conveyed a considerable distance by railway in a hammock. It was slung in a parcel van, its points of suspension being nine feet apart, and the patient being placed in it with her feet towards the engine, was very safely and comfortably transported to her journey's end.

— We are requested to state that there is an error on page 290 of Vol. III. of Ziemssen's Cyclopædia of Medicine. Instead of "ounces" read "drachms."

— During the year 1874, says the *Lancet*, 141,411 births and 92,352 deaths were registered in Ireland. Of the latter, 12,473 are stated to have occurred from zymotic diseases, the most fatal of which was scarlet fever. There were 2707 inquests reported to the registrars. The tide of emigration from Ireland shows no signs of subsiding, 73,184 persons having gone abroad in the year.

— A case of poisoning from eating laburnum flowers is reported by Mr. Frank W. Porter in the *Medical Press and Circular*. The patient was a fine child three years old who, when first seen, three hours after eating the flowers, was apparently moribund: the pulse was imperceptible, the surface of the body cold, pupils dilated, the head rigidly thrown back, and the breathing stertorous; vomiting was freely taking place, but purging was absent. Fragments of the broken-down flowers were discovered in the vomited matter. The treatment consisted of the free use of ammonia with bark, the application of sinapisms to epigastrium and nape of neck; castor oil was also administered. As the vomiting had been profuse for two hours no emetic was given. The child recovered rapidly.

— Very touching ceremonies have lately taken place at Como over the remains of Volta. At three kilometres from that town a small chapel had been erected, designed to receive the remains of that celebrated philosopher, the inventor of the electric pile which bears his name. Thither his remains have recently been transported with great pomp, in the presence of a multitude of noted scientific men. Very many eulogies were pronounced.

— The young ladies of the flower mission are already active, and again the various hospitals are in receipt of abundant supplies of flowers.

— Dr. Snow, the City Physician and Registrar of Providence, remarks in his mortality report for the month of May: " During the past eight months, notwithstanding the great amount of the disease in New York, and in our immediate vicinity in the valley of the Blackstone, and in Warwick, we have had only three cases of small-pox in Providence. These cases all came from other places, and *neither of them gave rise to a second case.* One town in this State has expended several thousand dollars this year in the care and burial of small-pox patients. The simple interest on the amount expended this year, if used every year for judicious vaccination, would render so great a prevalence of the disease impossible."

— Information comes that an epidemic of rabies has broken out among the dogs in Finland. *L'Union Médicale* states that the epidemic appeared first at Vibourg, thence passed to Helsingfors, and has just reached as far as Kuopio. It is propagated not only by mad dogs, but by other animals that may have been bitten. The police of Vibourg, of Helsingfors, and of Kuopio have taken very energetic measures. At Helsingfors every dog found in the streets is taken in charge. If it wears no collar it is immediately killed, otherwise it is guarded for three days, and if at the end of that time no one claims it, it is likewise put to death. There is need of precautions that the epidemic may not extend to the parts of Finland which are near St. Petersburg. The epidemic has also broken out in Denmark where, since February, energetic measures have been taken to prevent its spread.

— Dr. J. B. Mattison, in the *Medical Record* of June 12, 1875, thus describes an " Easily Effectual Method of Artificial Respiration." It is a modification of that known as Byrd's method. The infant upon its back, firmly grasp the outer thigh, the index finger and thumb encircling, and the inner limb resting upon the forearm, while the little finger is extended as far as possible up the back to form a fulcrum with the corresponding finger of the opposite hand. In the hollow formed by the thumb and forefinger of the right hand, allow the neck of the infant to rest with the palm under the shoulders, and the little finger extending down the back to meet its fellow of the other hand. Now gently and regularly depress the vertex and inferior extremities as much as practicable below the horizontal, say forty-five degrees, thus facilitating inspiration, and, after a proper interval elevate them to the same extent, forming a concavity of the chest and thereby promoting expiration. Continue these movements without interruption, taking care to permit no impediment to the exit and entrance of air during the upward and downward movements of the head and chest, and also exercising caution against too much lateral motion of the head during its continuance. The conjoined use of a little cold water dashed occasionally on the epigastrium will tend to enhance the efficacy of this method; indeed, its employment not at all precludes the use of whatever auxiliary measures may be deemed advisable.

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OPERATIONS AT THE CARNEY HOSPITAL DURING THE MONTH OF MAY, 1875.

AMONG the operations are the following: In the early part of the month a young man was brought in who had attempted suicide. He had placed the muzzle of a small pistol nearly over the meatus of the right ear and fired. On admission he was in a state of excitement, but submitted to etherization. The visiting surgeon, Dr. John Homans, found a portion of the bullet and considerable muddy powder in the meatus, the membrana tympani was blown away, and the interior of the petrous bone was bare and rough where the probe struck it; another wound, about a line or more posterior to the meatus, also entered the bone, but the rest of the bullet was not found. It is probable that the ball impinged upon the sharp edge of the osseous meatus and was split; a portion was found in the cavity of the meatus, and the remainder was imbedded in the petrous bone and had not injured the brain. On the morning after the injury the watch could be heard at a distance of two inches. In the course of a week the man had improved so much that he was sent away from the hospital with every prospect of recovery.

May 7, a sarcomatous tumor of the breast, with nodules scattered about in the skin, was removed. The existence of the tumor had been first noticed about six months before entrance. This patient recovered well. On the evening of May 9th, a woman forty-three years old was brought in with a large strangulated femoral hernia. She had been vomiting for seven days before entrance, and when brought to the hospital the vomiting was stercoraceous. The tumor was quite large; it was on the right side, parallel to Poupart's ligament, and extended from the pubes nearly to the anterior superior spine of the ilium. Efforts at reduction were unsuccessful, both before and after the use of the aspirator. Early next morning Dr. Homans operated; the skin was found to be adherent to the sac, the sac to the intestine, and the folds of intestine to each other. After considerable manipulation and the ligature of a small portion of omentum the hernia was returned. The vomiting ceased, but the patient died on the third day. There was no autopsy. On May 10th the dislocated shoulder of a woman said to be one hundred and five years old was reduced easily without ether. May 23d, a tumor about the size of a hen's egg, and which proved to be the right lobe of the thyroid gland, was removed by Dr.

Homans from the neck of an Italian woman about thirty years old. The tumor had been growing for fifteen years. Before the operation, all who had examined the tumor were agreed that it was a thin-walled cyst containing fluid, but it proved to be solid, and was described by Dr. Cutler as being identical in structure with the thyroid gland.

In addition to these operations by the attending surgeons, the following operations were performed by Dr. Hasket Derby on private patients boarding in the hospital, namely, peritomy, paracentesis of cornea, abscess of lachrymal sac, extraction of senile cataract, iridectomy for irido-choroiditis, one operation for convergent strabismus, and two iridectomies for glaucoma.

It may not be generally known to the profession that any physician in good standing may send patients to the private rooms of the hospital and attend them as if at a hotel. The price of rooms varies from twenty to thirty dollars a week, and the attending physician would charge his regular fees for his services. If patients enter the wards of the hospital they come, of course, under the care of the attending physician or surgeon.

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LETTER FROM PARIS.

Messrs. Editors, — The question which more than any other seems to be in continual agitation here is that concerning the administration of ether and chloroform. An old Spanish proberb says that "the tongue touches the aching tooth," and there certainly must be something about chloroform that aches and stings, else they would not be so continually rubbing and touching about the safety of its exhibition. Some two or three weeks since I was present at a clinique given by M. St. Germain at the Hôpital des Enfants Malades. M. St. Germain, who is a comfortable, easy-going gentleman, said that he held in his hand a pamphlet of remarkable excellence, namely, "Le Chloroform dans la Chirurgie des Enfants," by Dr. Albert Bergeron. This served as a text for M. St. Germain, and he gave us a learned lecture on the administration of ether, chloroform, and nitrous-oxide. "Of ether," M. St. Germain said, "but a few words will be necessary." He had seen it given according to the American method, and the patient became blue and livid, in point of fact, asphyxiated; thus he felt justified in rejecting ether and would give his vote for chloroform. Of the latter he would say that he had seen some fatal cases in the service of some very eminent surgeons at Paris. Notably a case of dislocation of the hip, when the reduction by flexion and rotation was most skillfully accomplished, but the patient was found to be dead. These fatal effects of chloroform, M. St. Germain thought, were not to be attributed entirely to chloroform, but to several other things. Firstly, to an impurity of the article used; thus he would warn us, when we had used chloroform once successfully, to be sure to have the very same manufacture the next time, and so on. Secondly, to the carelessness of *internes*, who would crane over to see what the surgeon was about, thus neglecting the patient. Thirdly, to a peculiar state of things in the region of the medulla oblongata. A state of things "fâcheuse," no doubt, "extrêmement fâcheuse," but which could not be foreseen. As to children, chloroform was almost universally successfully employed. Truly M. Bergeron had alluded in his pamphlet to the four cases which had proved fatal, when chloroform had been given in the surgery of children; but M. Bergeron had declared that these four cases were not sheltered from criticism, inasmuch as considerable hæmorrhages had been noted with three, and the fourth had recovered after the use of faradization. Of the fifth, who had died after chloroform had been given, just at the moment when a catheter entered the bladder, M. Bergeron victoriously pointed out the fact that there had been no autopsy. But notwithstanding that M. Bergeron has declared chloroform to be so eminently safe with children, he has pointed out the cases in which it must be forbidden; these are; 1st, With anæmic children. 2d, With children who have lost much blood. 3d, In all operations within the mouth. If the child under this preëminently safe anæsthetic comes to die, then flagellation, cold water, artificial respiration, electricity, etc. M. Bergeron speaks with some reserve of faradization of the phrenic nerves, as le docteur with a name compounded of three sneezes and a laugh, living in Germany, had recently announced that contraction of the diaphragm did not necessarily result from its practice. M. St. Germain alluded to a fact which he himself had observed, although he did not claim priority of observation, that at the period during the administration of chloroform when insensibility to pain was sufficient to allow of operation the pupil of the eye became contracted; that should the effect of chloroform pass off, or should vomiting occur, dilatation immediately succeeded. Hence, one now sees in all the Parisian hospitals the aids busily watching the iris, keeping it at the exact point between too great contraction and dilatation. I have seen somewhere, lately, an *exposé* of the cause of this contraction, but cannot at this moment lay my hand on it. M. St. Germain then told us of the mémoire of M. Forné presented to the Societé de Chirurgie under the title Contribution in regard to Surgical Anæsthesia, en deux temps. The method of M. Forné consists in this. First time (downward beat), to make the patient take a single dose of chloral from thirty to seventy-five grains. Wait until the patient is asleep. Second time (upward beat), give the chloroform. It usually takes an hour to get the patient asleep with the chloral (loc. cit.); the advantage consists in the small amount of chloroform required, thus making it a safer plan. Secondly, the persons asleep are not frightened by the chloroform. (Il va sans dire.) The plan no doubt has its advantages, said M. St. Germain, but I should hesitate to give such doses of chloral. M. Dolbeau has remarked another inconvenience, namely, the truly frightful coldness of patients who are chloroformed after taking chloral. M. St. Germain then touched lightly on the employment of chloroform in regard to perpetration of crimes by its use. M. Dolbeau had instituted very curious experiments in this matter. It had resulted from facts observed at Hospital Beaujon, that when one approached an adult already plunged in a natural sleep with a compress saturated with chloroform, the vapors which exhaled therefrom caused an abrupt awakening, mingled with agitation and convulsions. With children this is different. When asleep the cautious exhibition of chloroform causes no awakening. These facts are then of some importance in legal medicine. Here M. St. Germain finished, and his auditors ran home in haste for the half-past eleven déjeuner.

But it was at the meeting of the Societé de Chirurgie on the 3d of March last that ether and the American method came in for a shower of hard blows. M. Girard-Tenlon, since a serious accident brought about by chloroform, exclusively employed ether, which he had administered accordingly to *la methode Américaine*, in a manner to produce sideration of the patient. This method consisted in pouring on a compress from three to four ounces of ether, and preventing all access of air. M. Perrin raised himself against calling this by the title of American. It was nothing else than the method of Bennet of Lyons. This surgeon turned on ether in floods, and foudroyait ses malades. But it appeared that there had been two deaths at Lyons from this method. M. Dupluy said that "in regard to ether, the Americans had special persons to administer it, and that it was only when the patients were etherized that they were carried into the operating theatre. Your correspondent thought proper, in a letter to M. Marc Sée, the annual secretary, to protest against these statements being received as true, but has received no reply as yet. The weather here is charming to-day, but has been very variable; heats and cold, and as a consequence, *rhumes* (colds), and coughs, abound. Of Paris the poet might have truly sung,

> "Here the first noses of the spring shall blow."

W. C. B. FIFIELD.

PARIS, *April* 24, 1875.

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THE DANGERS OF SUMMER RESORTS.

MESSRS. EDITORS, — The community is at present both shocked and alarmed at the spirit of violence which is abroad. The already long list of deeds of horror is being constantly swelled by fresh acts which vie in atrocity with those which have preceded. In too many of these cases will the guilty person escape the punishment due him, and it will, I believe, become a subject of serious reflection whether sufficient value is put upon the prevention of crime, and whether too much dependence is not put upon the separation of the convicted from society at large.

But there is a class of persons in the community who openly invite men, women, and children into their houses, where they are maimed and killed in considerable numbers, and who are not subject to the surveillance of the police and do not fear punishment. I admit that there is a difficulty in meting out punishment to these individuals, by reason of the inability to prove intention and malice. In the majority of cases, also, the party, if accused, would plead that he was not aware even that any deadly weapon was on the premises, or that he did not know it to be loaded. In some cases, also, he would insist that it was quite impossible that the injuries could have been inflicted in or about the house, because, of the many occupants thereof, not one heard any explosion; it being forgotten that air-guns kill at short range quite as effectually as guns charged with powder. Now I propose that the law take cognizance of these individuals, and prevent them from being the willing or the unwilling agencies of death, by means of some police force, which shall search their premises and shall require them to destroy the weapons referred to if they are found thereon. If it is insisted that the weapons are not kept loaded, it shall be demonstrated that they are generally loaded, nevertheless; that they are of such a nature as to be loaded unwittingly by the occupants of the houses themselves, and that the maiming and killing of the victims take place without any explosion whatever. The immediate removal of the instruments from the premises shall then be insisted on.

To make my meaning perfectly clear, I propose that the law, through State Boards of Health or some other arbitrary power, thoroughly examine the premises of all persons who receive boarders or lodgers, and see if that dangerous weapon, imperfect drainage, — always loaded and at full-cock, — exist thereon, and if found, that its removal be at once required.

My thoughts are at present more particularly directed to the summer resorts. The annual exodus from the city to the country will soon commence. In nine cases out of ten these places, whether they be large hotels or farmers' boarding-houses, are provided with insufficient drainage or with no drainage at all. Out of the thousands who will leave our city well, for the most part, except for the fatigue incident to the winter's work or pleasure, scores will fall ill and some will die from the effect of the poison arising from decomposing waste-material. Now, I insist that the only proper way of remedying the evil is that which I have mentioned. It is certainly not a proper way to allow the matter to be remedied gradually at the expense of human lives. There is no doubt that when all the resorts have had their victims, as at the hotel at Mt. Desert, the nuisance will be righted; but, I repeat, this is not the proper method. Moreover, few if any of the hosts know what constitutes proper drainage, and guests know quite as little what should be the chief point inquired about when seeking a summer residence. Many of the latter rely upon the advertisements in the newspapers of the day, which now contain notices of the resorts in considerable numbers. They all read alike: "Fine prospect; beautiful drives; good table," etc., but not a word about the absence of disease and death beneath the windows of the sleeping apartments. But I am mistaken. I did see, a few weeks ago, an advertisement in which were the cheering words, "good drainage." A slight suspicion that the proprietor of the establishment might not know what constitutes good drainage induced me to write him a note something like the following: —

DEAR SIR, — I notice an advertisement, etc., in which it is stated that your establishment has good drainage. Will you be kind enough to write me whither the waste water of the house is conveyed; whether, for instance, into a cess-pool on the premises, or into a running stream; and whether by means of closed pipes under ground or of open troughs above ground. Also, whence you obtain your drinking water; whether from springs in the neighborhood or from a well on the premises. And, if a cess-pool is used and the drinking water is drawn from a well, what the distance is between the two receptacles.

Very truly.

Up to the present time of writing, some four weeks, — the distance of the hotel from Boston being about two hundred miles, — no answer to this note has been received. The probability is that the proprietor is shrewd enough to see that his answer would not satisfy me. The chances are, also, that he has a leaky hogshead for a cess-pool, placed in the immediate neighborhood of his well.

Until the civil authorities take proper action to remedy the evil here referred to, it is the duty of physicians to warn the families under their charge of the danger they may encounter at these summer resorts. Let them be advised to insist upon detailed answers to set inquiries regarding the drainage; as, "Where is the waste water deposited?" and "Whence do you obtain the drinking water?" Inquiries about the table are important, but of secondary importance. Fried beef-steak is unpalatable, but the inhaling of gases from decomposed albuminous material, or the drinking of water impregnated with such material, implies disease and sometimes death. —— ——

BOSTON, *Ju[illegible]d.*

PRELIMINARY MEDICAL EDUCATION.

MESSRS. EDITORS, — The announcement of additional requisites for admission to the Medical School of Harvard University reminds the writer of your request for an account of the efforts made in the Cornell University to offer an instruction and training especially adapted to the needs of those intending to pursue a medical course.

The need for such a preliminary course has been well stated by Huxley, and is, indeed, self-evident; to none more clearly than to members of our profession. And when Harvard's example has been followed by the other schools, as it must be within a very few years, we shall look back with amazement to the time when health and life were intrusted to some who began their medical studies without a proper English education, who might easily take *gramme* as a misprint for *grain*, who heard lectures upon surgery without any knowledge of anatomy, and upon therapeutics while ignorant of physiology, and who, at the end of an abbreviated three years (at least one of which was consumed in "learning how to learn"), obtained a degree partly by "cramming" and partly through the superficial verbal examination of the large number of candidates which the reputation of the school made it desirable to graduate.

The opportunity of amending this condition of things was furnished in the Cornell University by two of the "special features" upon which its president has laid much stress.

1. *Absolute liberty in the choice of studies.* 2. *The prominence given to the natural sciences, and especially physiology.* This study has from the beginning been pursued by all students (with few exceptions) during the first term of the first year; chiefly upon the ground that since the habits of life then formed are apt to endure, the student should as soon as possible be given the data upon which hygienic considerations are based. That "Freshmen" are quite capable of receiving such instruction is shown by the large proportion who pass an examination differing very little from that of the medical schools.

The writer has spoken of physiology as the study with which he has had most to do, and because it is naturally prominent in any scheme for preliminary medical education. But a glance at the course which is "recommended for those intending to become physicians or naturalists" shows that scarcely less value is attached to other sciences and to the languages.

An important feature of the course is the large amount of *laboratory practice.* (The actual time so spent is at least three hours for each hour as stated upon the programme in the Register.) All learn to identify tissues under the microscope, to dissect, and to make notes and drawings of their observations. Similar work is done in botany, geology, and chemistry.

Most of those who take the full course of four years are intending to be naturalists, but there are always several who remain for one, two, or three years, and then enter the medical schools. So far as has been ascertained, their progress therein has justified the expectation based upon the extent of their preliminary training.

It has been more than once proposed to establish a medical department connected with the university. The writer hopes for this only upon condition that an endowment can be secured sufficient to render the school independent of the number of its students or graduates, and enable it to either lengthen its course of study to four or five years, and so raise the standard for graduation, or require for admission to the school an examination covering one or two years of a course like that above described.

The last four years' experience has shown that Harvard was right in "radically changing the plan of medical study" so as to introduce a natural and orderly sequence. The step just taken may temporarily lessen attendance, but the loss in number must be more than compensated by the improved quality, and there can be no doubt that in the end the school will gain in all respects.

B. G. W.

ITHACA, N. Y., *April* 24, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending June 19, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

In Berkshire, rheumatism, scarlatina, and typhoid fever are reported.

In the Connecticut Valley, rheumatism, whooping-cough, and pneumonia prevail. Reports of small-pox come from East Hampton and Huntington.

In Worcester County, rheumatism, measles, and diarrhœa are prevalent.

In the Northeastern counties, diphtheria and scarlatina have increased. Dysentery is also more prevalent.

In the Metropolitan section, bronchitis, diarrhœa, rheumatism, and scarlatina prevail. Cholera morbus and cholera infantum begin to be reported.

In the Southeastern counties, measles and rheumatism continue; all other acute diseases have subsided.

In the State at large, measles and diarrhœa have increased in prevalence, but there is a general abatement of acute diseases.

F. W. Draper, M. D., Registrar.

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COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING JUNE 12, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York	1,040,000	496	25
Philadelphia	775,000		
Brooklyn	450,000	168	19
Boston	350,000	131	19
Providence	100,000	33	17
Worcester	50,000	16	17
Lowell	50,000	20	21
Cambridge	44,000	20	24
Fall River	34,200	16	24
Lawrence	33,000	11	17
Springfield	33,000	12	18
Lynn	28,000	6	11
Salem	26,000	13	26

Books and Pamphlets Received. — Relation of Ophthalmology to Practical Medicine. By Wm. Thomson, M. D. Philadelphia: Lippincott & Co. 1875.

Analysis of One Thousand Cases of Skin Disease. By L. Duncan Bulkley, M. D. (Reprinted from the American Practitioner.) 1875.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Vol. III. Chronic Infectious Diseases. Albert H. Buck, M. D., Editor of American Edition. New York: Wm. Wood & Co. 1875. (From H. D. Brown & Co., Boston.)

Annual Address before the Society of the Alumni of the Medical Department of the University of Pennsylvania. By C. C. Comegys, M. D. 1875. Pp. 79.

Eleventh Annual Report of the Overseers of the Poor of the City of Boston. 1875. Pp. 53.

Bad Health: its Physical and Moral Causes in American Women. By James E. Reeves, M. D., Wheeling, West Virginia. (Read before the American Public Health Association.) Wheeling, 1875. Pp. 43.

Cincinnati Industrial Exposition. 1875. Rates and Premium List. Pp. 60.

Report of the Board of Commissioners Fifth Cincinnati Industrial Exposition, 1874. Cincinnati, 1875. Pp. 341.

Anæsthesia and Anæsthetics. By T. W. Trades, Sedalia, Mo. (Reprinted from the Transactions of the Medical Association of the State of Missouri.) 1875. Pp. 16.

Military Appointment. — Dr. David Dana of Lawrence, appointed Surgeon of the Second Battalion of Artillery, M. V. M., vice Seyffarth deceased, passed a successful examination before the Board of Medical Officers, M. V. M., June 12th, 1875.

Edward J. Forster,
Surgeon Fifth Regiment of Infantry, M. V. M., Recorder of Board.

Messrs. Editors, — In my letter to your paper last week a *lapsus pennæ* of my transcriber has put General Howe's name in place of General Clinton. Your readers probably, however, made the mental correction.

Respectfully yours, John Jeffries.

15 Chestnut St., Boston, *June* 16, 1875.